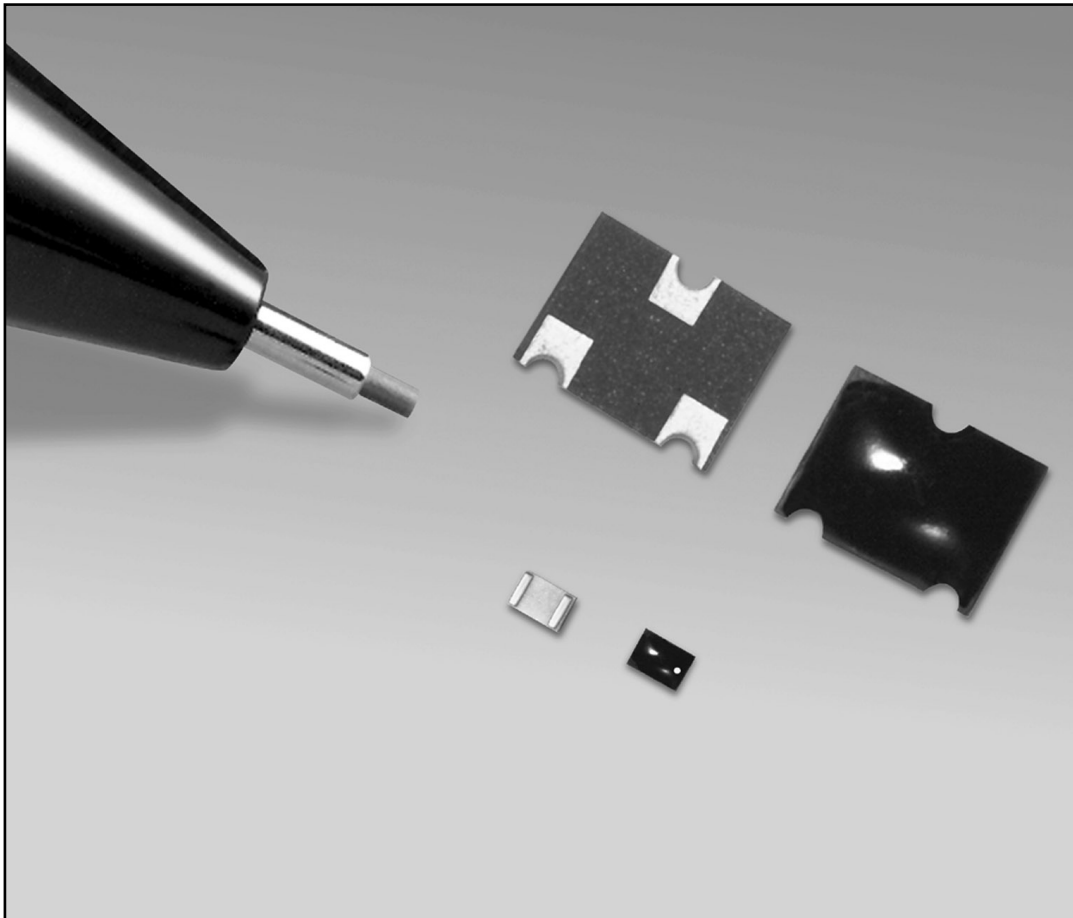


VARACTOR DIODES



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SUPER HYPERABRUPT TUNING VARACTOR DIODES

FEATURES

- Mesa epitaxial silicon construction
- Silicon dioxide passivated
- Superior mid range linear characteristics
- High tuning ratios
- High Q
- Available in common cathode style
- Available in chip form (add suffix -000)

APPLICATIONS

- TCXOs, VCXOs
- Low voltage wireless open loop VCOs

- Low voltage wireless phase locked loop VCOs
- Phase shifters

SPECIFICATIONS

Reverse breakdown voltage at 10 μ A DC (at 25°C): 12 V min

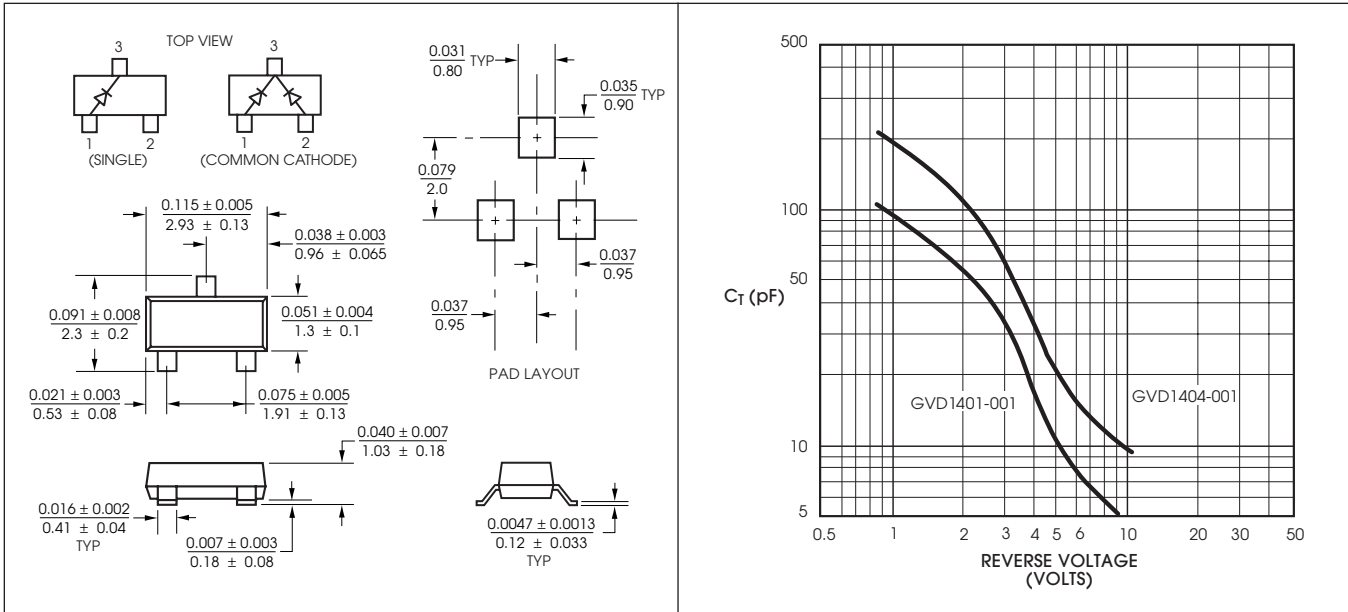
Maximum reverse leakage current at -10 V (at 25°C): 0.05 μ A DC

Device dissipation at 25°C: 250 mW (derated linearly to zero at +125°C)

Operating junction temperature: -55°C to +125°C

Storage temperature: -55°C to +125°C

| Total Capacitance C_T (pF) at -2 V | | Total Capacitance C_T (pF) at -7 V typ | Total Capacitance C_T (pF) at -10 V | | Q min at -2 V (10 MHz) | Model Number | |
|--------------------------------------|-----|--|---------------------------------------|------|------------------------|--------------|----------------|
| min | max | | min | max | | Single | Common Cathode |
| 46 | 68 | 6.1 | 4.2 | 5.2 | 75 | GVD1401-001 | — |
| 100 | 150 | 13.0 | 8.6 | 10.6 | 50 | GVD1404-001 | — |



SOT-23 PACKAGE - Consult factory for additional package configurations.
 All dimensions are in / mm.
 Unless otherwise specified, the tolerance on dimensions is $\pm 0.004/0.1$.

SUPER HYPERABRUPT TUNING VARACTOR DIODES

FEATURES

- Mesa epitaxial silicon construction
- Silicon dioxide passivated
- Superior mid range linear characteristics
- High tuning ratios
- High Q
- Available in common cathode Style
- Available in chip form (add suffix -000)

- Low voltage wireless phase locked loop VCOs
- Phase shifters

SPECIFICATIONS

Reverse breakdown voltage at 10 μ A DC (at 25°C): 12 V min

Maximum reverse leakage current at -10 V (at 25°C): 0.05 μ A DC

Device dissipation at 25°C: 250 mW (derated linearly to zero at +125°C)

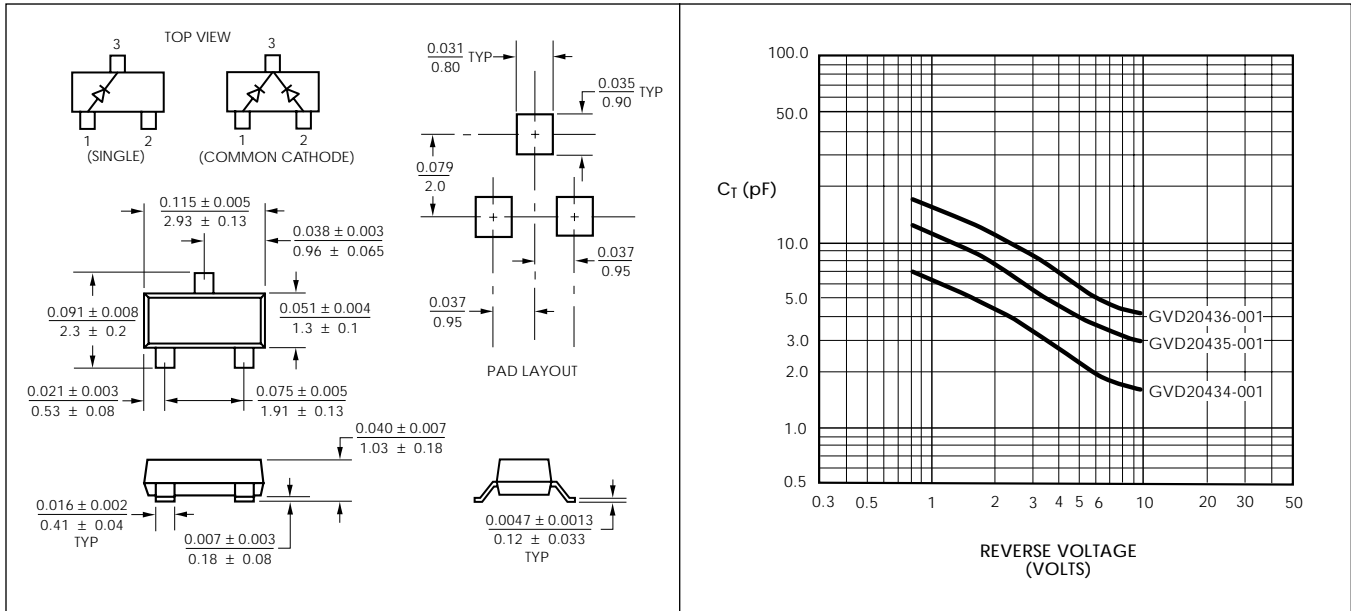
Operating junction temperature: -55°C to +125°C

Storage temperature: -55°C to +125°C

APPLICATIONS

- TCXOs, VCXOs
- Low voltage wireless open loop VCOs

| Total Capacitance C_T (pF) at -1 V min max | | Capacitance Ratio $\frac{C_T \text{ at } -1 \text{ V}}{C_T \text{ at } -3 \text{ V}}$ | | Capacitance Ratio $\frac{C_T \text{ at } -1 \text{ V}}{C_T \text{ at } -6 \text{ V}}$ | | Q min at -4 V (50 MHz) | Model Number | |
|--|-------|--|-----|--|-----|------------------------------|--------------|----------------|
| | | min | max | min | max | | Single | Common Cathode |
| 3.00 | 3.60 | 1.4 | 1.9 | 2.6 | 3.3 | 1500 | GVD20433-001 | GVD20433-004 |
| 5.85 | 7.15 | 1.6 | 2.0 | 2.8 | 3.4 | 1200 | GVD20434-001 | GVD20434-004 |
| 10.35 | 12.65 | 1.6 | 2.0 | 2.9 | 3.4 | 1000 | GVD20435-001 | GVD20435-004 |
| 15.50 | 18.50 | 1.6 | 2.0 | 3.0 | 3.5 | 900 | GVD20436-001 | GVD20436-004 |
| 45.00 | 54.00 | 1.6 | 2.0 | 3.0 | 3.5 | 750 | GVD20437-001 | --- |



SOT-23 PACKAGE - Consult factory for additional package configurations.
 All dimensions are in / mm.
 Unless otherwise specified, the tolerance on dimensions is $\pm 0.004/0.1$.

SUPER HYPERABRUPT TUNING VARACTOR DIODES

FEATURES

- Mesa epitaxial silicon construction
- Silicon dioxide passivated
- Superior mid range linear characteristics
- High tuning ratios
- High Q
- Available in common cathode style
- Available in chip form (add suffix -000)

APPLICATIONS

- TCXOs, VCXOs
- Low voltage wireless open loop VCOs

- Low voltage wireless phase locked loop VCOs
- Phase shifters

SPECIFICATIONS

Reverse breakdown voltage at 10 μ A DC (at 25°C): 12 V min

Maximum reverse leakage current at -10 V (at 25°C): 0.05 μ A DC

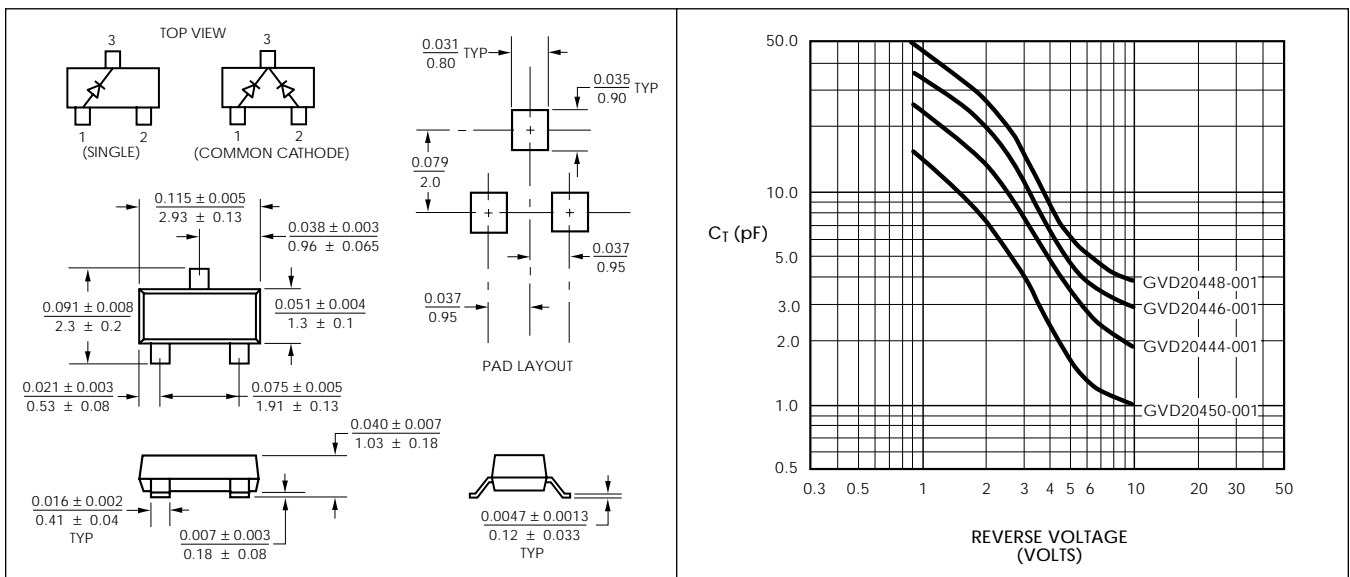
Device dissipation at 25°C: 250 mW (derated linearly to zero at +125°C)

Operating junction temperature: -55°C to +125°C

Storage temperature: -55°C to +125°C

| Total Capacitance C_T (pF) at -1 V min | Total Capacitance C_T (pF) at -2.5 V min max | | Total Capacitance C_T (pF) at -8 V max | Q min at -4 V (50 MHz) | Model Number | |
|--|--|------|--|------------------------|--------------|----------------|
| | min | max | | | Single | Common Cathode |
| 13.0 | 6.5 | 10.0 | 2.7 | 750 | GVD20442-001 | GVD20442-004 |
| 13.0 | 6.5 | 10.0 | 2.7 | 350 | GVD20443-001 | GVD20443-004 |
| 17.0 | 8.5 | 13.0 | 3.2 | 600 | GVD20444-001 | GVD20444-004 |
| 17.0 | 8.5 | 13.0 | 3.2 | 300 | GVD20445-001 | GVD20445-004 |
| 26.0 | 13.0 | 20.0 | 4.7 | 500 | GVD20446-001 | --- |
| 26.0 | 13.0 | 20.0 | 4.7 | 225 | GVD20447-001 | --- |
| 36.0 | 18.0 | 27.0 | 6.2 | 400 | GVD20448-001 | --- |
| 36.0 | 18.0 | 27.0 | 6.2 | 150 | GVD20449-001 | --- |

| Total Capacitance C_T (pF) at -1 V min | Total Capacitance C_T (pF) at -2.5 V min max | | Total Capacitance C_T (pF) at -4 V max | Q min at -4 V (50 MHz) | Model Number | |
|--|--|-----|--|------------------------|--------------|----------------|
| | min | max | | | Single | Common Cathode |
| 9.0 | 4.5 | 6.5 | 3.0 | 400 | GVD20450-001 | GVD20450-004 |



SOT-23 PACKAGE - Consult factory for additional package configurations.
 All dimensions are in / mm.
 Unless otherwise specified, the tolerance on dimensions is $\pm 0.004 / 0.1$.

SUPER HYPERABRUPT TUNING VARACTOR DIODES

Surface Mount Low Parasitic Package (SMLP)

FEATURES

- Mesa epitaxial silicon construction
- Silicon dioxide passivated
- Fits footprint for SOD-323, SOD-123 and smaller
- High frequency (VHF to 8 GHz)
- Available on carrier and reel
- Available in chip form (add suffix -000)
- Two package styles including lower cost, flat top version
- Alternate notched termination version available, contact factory for outline drawing

APPLICATIONS

- PCS
- WANS
- DECT
- GSM
- TAGS
- AMPS
- Cellular

SPECIFICATIONS

Reverse breakdown voltage at 10 μ A DC (at 25°C): 12 V min

Maximum reverse leakage current at -10 V (at 25°C): 0.05 μ A DC

Device dissipation at 25°C: 250 mW (derated linearly to zero at +125°C)

Operating junction temperature: -65°C to +125°C

Storage temperature: -65°C to +125°C

| Total Capacitance C_T (pF) at -1 V min | Total Capacitance C_T (pF) at -2.5 V min max | | Total Capacitance C_T (pF) at -4 V max | Total Capacitance C_T (pF) at -8 V max | Q min at -4 V (50 MHz) | Model Number* |
|--|--|------|--|--|------------------------|----------------|
| 36.0 | 18.0 | 27.0 | 12.0 | 6.2 | 400 | GVD90001 - --- |
| 26.0 | 13.0 | 20.0 | 9.0 | 4.7 | 500 | GVD90002 - --- |
| 17.0 | 8.5 | 13.0 | 6.0 | 3.2 | 600 | GVD90003 - --- |
| 13.0 | 6.5 | 10.0 | 4.5 | 2.7 | 750 | GVD90004 - --- |
| 9.0 | 4.5 | 6.5 | 3.0 | 1.7 | 900 | GVD90005 - --- |
| 4.0 | 2.0 | 3.0 | 1.5 | 1.0 | 1200 | GVD90006 - --- |
| 1.8 | 1.1 | 1.5 | 0.8 | 0.55 | 1400 | GVD90007 - --- |
| 1.2 | 0.8 | 1.1 | 0.6 | 0.45 | 1600 | GVD90008 - --- |
| 0.6 | 0.5 | 0.8 | 0.4 | 0.35 | 1800 | GVD90009 - --- |

* For complete model number, select "Dash No.," from chart below.

| TERMINATIONS (GOLD PLATED) BOTTOM VIEW D TYP | TOP VIEW DOT INDICATES CATHODE END A | MOUNTING PAD LAYOUT K TYP L M | SIDE VIEW FOR -01 EPOXY ENCAPSULANT C1 | SIDE VIEW FOR -11 EPOXY ENCAPSULANT C2 | Dash No. | A | B | C ₁ | C ₂ | D | K | L | M |
|--|--|--|--|--|---------------|-------|-------|----------------|----------------|---------------|-------|-------|-------|
| | | | | | -011 | 0.10 | 0.050 | 0.035 | 0.050 | 0.015 ± 0.004 | 0.030 | 0.070 | 0.112 |
| -111 | 2.5 | 1.3 | 0.89 | 1.3 | 0.38 ± 0.1 | 0.76 | 1.8 | 2.84 | | | | | |
| -012 | 0.12 | 0.060 | 0.035 | 0.050 | 0.020 ± 0.005 | 0.030 | 0.080 | 0.132 | | | | | |
| -112 | 3.0 | 1.5 | 0.89 | 1.3 | 0.51 ± 0.1 | 0.76 | 2.0 | 3.35 | | | | | |
| -013 | 0.200 | 0.100 | 0.035 | 0.050 | 0.020 ± 0.005 | 0.030 | 0.120 | 0.212 | | | | | |
| -113 | 5.08 | 2.54 | 0.89 | 1.3 | 0.51 ± 0.1 | 0.76 | 3.05 | 5.38 | | | | | |
| -014 | 0.075 | 0.050 | 0.035 | 0.050 | 0.015 ± 0.004 | 0.030 | 0.070 | 0.087 | | | | | |
| -114 | 1.9 | 1.3 | 0.89 | 1.3 | 0.38 ± 0.1 | 0.76 | 1.8 | 2.2 | | | | | |
| -015 | 0.062 | 0.042 | 0.030 | 0.050 | 0.011 ± 0.003 | 0.020 | 0.060 | 0.072 | | | | | |
| -115 | 1.6 | 1.1 | 0.76 | 1.3 | 0.28 ± 0.08 | 0.51 | 1.5 | 1.8 | | | | | |

All dimensions are in / mm.

Unless otherwise specified, the tolerance on dimensions is ± 0.003/0.08.

Note: An SMLP package with three terminations sized to fit the pad layout for an SOT-23 package is also available. This package can be used for multiple diode designs (such as common cathode or common anode). Contact factory for the three-terminal SMLP outline drawing, and for further information on the multiple diode configurations.

WIDEBAND HYPERABRUPT TUNING VARACTOR DIODES

Microwave Hyperabrupt Series

FEATURES

- Mesa epitaxial silicon construction
- Silicon dioxide passivated
- Superior wide range linear characteristics
- High tuning ratios
- High Q
- Available in common cathode style
- Available in chip form (add suffix -000)

- High linearity VCOs
- Phase shifters

SPECIFICATIONS

Reverse breakdown voltage at 10 μ A DC (at 25°C): 20 V min

Maximum reverse leakage current at -20 V (at 25°C): 0.05 μ A DC

Device dissipation at 25°C: 250 mW (derated linearly to zero at +125°C)

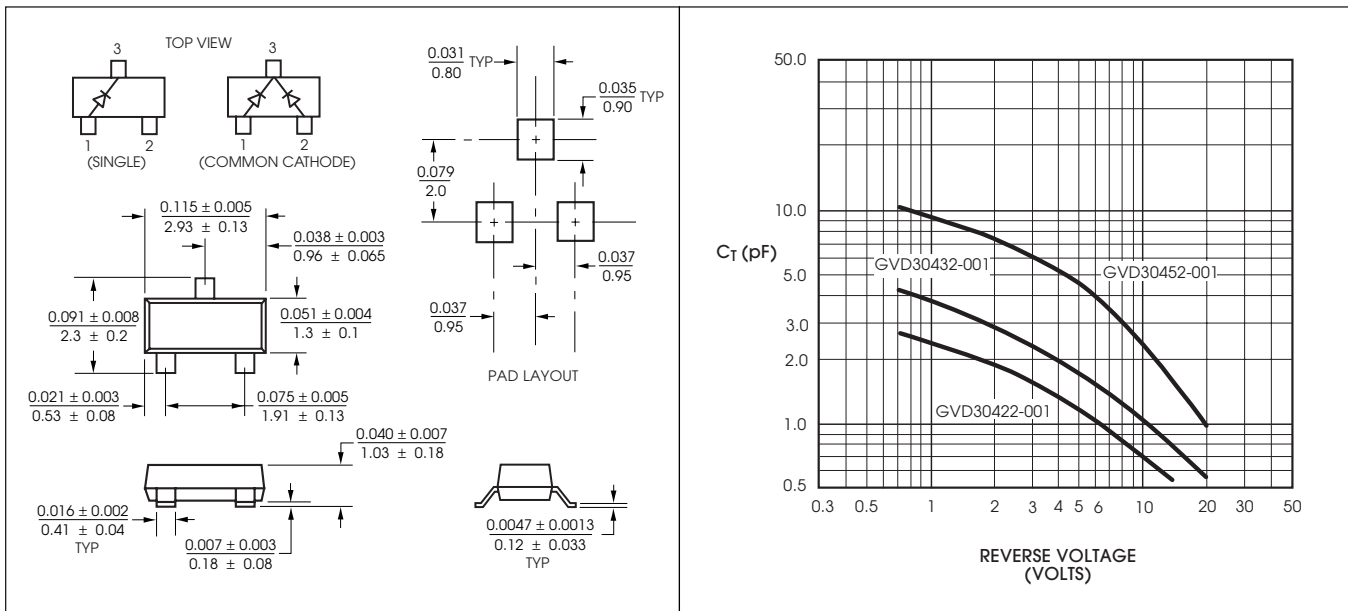
Operating junction temperature: -55°C to +125°C

Storage temperature: -55°C to +125°C

APPLICATIONS

- Low phase noise VCOs
- Phase locked loop VCOs

| Total Capacitance C_T (pF) at -0 V min | Total Capacitance C_T (pF) at -4 V min max | | Total Capacitance C_T (pF) at -20 V min max | | Q min at -4 V (50 MHz) | Model Number | |
|--|--|-------|---|------|------------------------|--------------|----------------|
| | | | | | | Single | Common Cathode |
| 2.7 | 1.25 | 1.75 | 0.43 | 0.57 | 1000 | GVD30422-001 | GVD30422-004 |
| 4.2 | 1.70 | 2.50 | 0.52 | 0.72 | 850 | GVD30432-001 | GVD30432-004 |
| 6.3 | 2.20 | 3.80 | 0.68 | 0.96 | 700 | GVD30442-001 | GVD30442-004 |
| 11.9 | 3.70 | 5.50 | 0.94 | 1.30 | 600 | GVD30452-001 | GVD30452-004 |
| 26.0 | 9.00 | 11.00 | 1.90 | 2.50 | 400 | GVD30462-001 | GVD30462-004 |



SOT-23 PACKAGE - Consult factory for additional package configurations.
 All dimensions are in / mm.
 Unless otherwise specified, the tolerance on dimensions is $\pm 0.004/0.1$.

WIDEBAND HYPERABRUPT TUNING VARACTOR DIODES

VHF/UHF Hyperabrupt Series

FEATURES

- Mesa epitaxial silicon construction
- Silicon dioxide passivated
- Superior wide range linear characteristics
- High tuning ratios
- High Q
- Available in common cathode style
- Available in chip form (add suffix -000)

- High linearity VCOs
- Phase shifters

SPECIFICATIONS

Reverse breakdown voltage at 10 μ A DC (at 25°C): 25 V min

Maximum reverse leakage current at -20 V (at 25°C): 0.05 μ A DC

Device dissipation at 25°C: 250 mW (derated linearly to zero at +125°C)

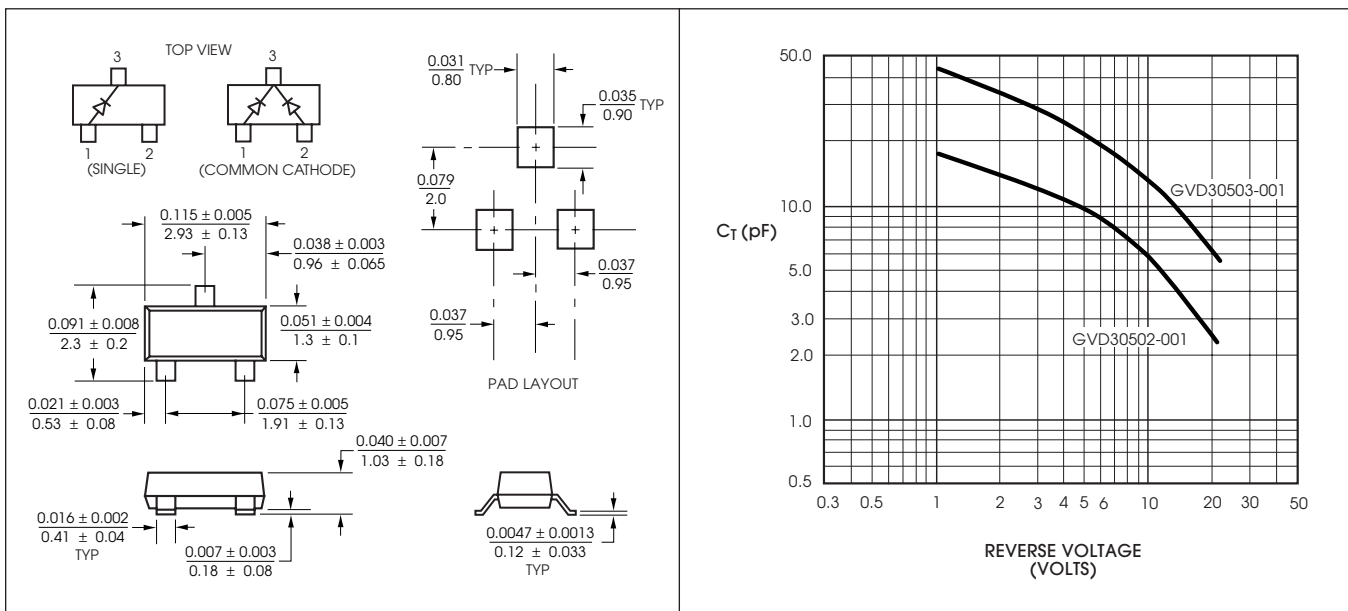
Operating junction temperature: -55°C to +125°C

Storage temperature: -55°C to +125°C

APPLICATIONS

- Low phase noise VCOs
- Phase locked loop VCOs

| Total Capacitance C_T (pF) at -3 V | | Total Capacitance C_T (pF) at -25 V | | Q min at -4 V (50 MHz) | Model Number | |
|--------------------------------------|------|---------------------------------------|-----|------------------------|--------------|----------------|
| min | max | min | max | | Single | Common Cathode |
| 9.5 | 14.5 | 1.8 | 2.8 | 200 | GVD30501-001 | — |
| 9.5 | 14.5 | 1.8 | 2.8 | 750 | GVD30502-001 | — |
| 26.0 | 32.0 | 4.3 | 6.0 | 200 | GVD30503-001 | — |
| 26.0 | 32.0 | 4.3 | 6.0 | 500 | GVD30504-001 | — |



SOT-23 PACKAGE - Consult factory for additional package configurations.
 All dimensions are in mm.
 Unless otherwise specified, the tolerance on dimensions is $\pm 0.004/0.1$.

WIDEBAND HYPERABRUPT TUNING VARACTOR DIODES

VHF/UHF Hyperabrupt Series

FEATURES

- Mesa epitaxial silicon construction
- Silicon dioxide passivated
- Superior wide range linear characteristics
- High tuning ratios
- High Q
- Available in common cathode style
- Available in chip form (add suffix -000)

APPLICATIONS

- Low phase noise VCOs
- Phase locked loop VCOs

- High linearity VCOs
- Phase shifters

SPECIFICATIONS

Reverse breakdown voltage at 10 μ A DC (at 25°C): 22 V min

Maximum reverse leakage current at -20 V (at 25°C): 0.05 μ A DC

Device dissipation at 25°C: 250 mW (derated linearly to zero at +125°C)

Operating junction temperature: -55°C to +125°C

Storage temperature: -55°C to +125°C

| Total Capacitance C_T (pF) at -4 V | | Total Capacitance C_T (pF) at -8 V | | Total Capacitance C_T (pF) at -20 V | | Q min at -4 V (50 MHz) | Model Number | |
|--------------------------------------|-------|--------------------------------------|------|---------------------------------------|------|------------------------|--------------|----------------|
| min | max | min | max | min | max | | Single | Common Cathode |
| 18.0 | 22.0 | 7.5 | 10.5 | 2.7 | 3.5 | 160 | GVD30601-001 | — |
| 45.0 | 55.0 | 18.0 | 25.0 | 6.6 | 9.0 | 125 | GVD30602-001 | — |
| 100.0 | 120.0 | 39.0 | 55.0 | 14.0 | 19.0 | 80 | GVD30603-001 | — |



SOT-23 PACKAGE - Consult factory for additional package configurations.
 All dimensions are in /mm.
 Unless otherwise specified, the tolerance on dimensions is $\pm 0.004/0.1$.

MICROWAVE HYPERABRUPT TUNING VARACTOR DIODES

Surface Mount Low Parasitic Package (SMLP)

FEATURES

- Mesa epitaxial silicon construction
- Silicon dioxide passivated
- Fits Footprint for SOD-323, SOD-123 and smaller
- High frequency (VHF to 8 GHz)
- Available on carrier and reel
- Available in chip form (add suffix -000)
- Two package styles including lower cost, flat top version
- Alternate notched termination version available, contact factory for outline drawing

APPLICATIONS

- PCS
- WANS
- AMPS
- GSM
- TAGS
- DECT
- Cellular

SPECIFICATIONS

Reverse breakdown voltage at 10 μ A DC (at 25°C): 22 V min
 Maximum reverse leakage current at -20 V (at 25°C): 0.05 μ A DC
 Device dissipation at 25°C: 250 mW (derated linearly to zero at +125°C)
 Operating junction temperature: -65°C to +125°C
 Storage temperature: -65°C to +125°C

| Total Capacitance C_T (pF) at 0 V typical | Total Capacitance C_T (pF) at -4 V | | Total Capacitance C_T (pF) at -20 V | | Q min at -4 V (50 MHz) | Model Number* |
|---|--------------------------------------|-------|---------------------------------------|------|------------------------|------------------|
| | min | max | min | max | | |
| 26.0 | 8.75 | 10.80 | 1.85 | 2.50 | 400 | GVD92101 - _ _ _ |
| 14.0 | 4.45 | 5.50 | 0.85 | 1.30 | 600 | GVD92102 - _ _ _ |
| 7.0 | 2.65 | 3.30 | 0.65 | 0.90 | 700 | GVD92103 - _ _ _ |
| 5.0 | 1.75 | 2.20 | 0.50 | 0.70 | 850 | GVD92104 - _ _ _ |
| 3.0 | 1.30 | 1.65 | 0.40 | 0.55 | 1000 | GVD92105 - _ _ _ |
| 2.0 | 0.85 | 1.10 | 0.30 | 0.45 | 1200 | GVD92106 - _ _ _ |

*For complete model number, select "Dash No." from chart below.

| TERMINATIONS (GOLD PLATED) BOTTOM VIEW D TYP | TOP VIEW DOT INDICATES CATHODE END A | SIDE VIEW FOR -01 EPOXY ENCAPSULANT C1 | SIDE VIEW FOR -11 EPOXY ENCAPSULANT C2 | MOUNTING PAD LAYOUT K TYP, L, M | Dash No. | A | B | C ₁ | C ₂ | D | K | L | M |
|--|--|--|--|------------------------------------|-------------------|-------|-------|----------------|----------------|-------------------|-------|-------|-------|
| | | | | | - 011 | 0.10 | 0.050 | 0.035 | 0.050 | 0.015 \pm 0.004 | 0.030 | 0.070 | 0.112 |
| - 111 | 2.5 | 1.3 | 0.89 | 1.3 | 0.38 \pm 0.1 | 0.76 | 1.8 | 2.84 | | | | | |
| - 012 | 0.12 | 0.060 | 0.035 | 0.050 | 0.020 \pm 0.005 | 0.030 | 0.080 | 0.132 | | | | | |
| - 112 | 3.0 | 1.5 | 0.89 | 1.3 | 0.51 \pm 0.1 | 0.76 | 2.0 | 3.35 | | | | | |
| - 013 | 0.200 | 0.100 | 0.035 | 0.050 | 0.020 \pm 0.005 | 0.030 | 0.120 | 0.212 | | | | | |
| - 113 | 5.08 | 2.54 | 0.89 | 1.3 | 0.51 \pm 0.1 | 0.76 | 3.05 | 5.38 | | | | | |
| - 014 | 0.075 | 0.050 | 0.035 | 0.050 | 0.015 \pm 0.004 | 0.030 | 0.070 | 0.087 | | | | | |
| - 114 | 1.9 | 1.3 | 0.89 | 1.3 | 0.38 \pm 0.1 | 0.76 | 1.8 | 2.2 | | | | | |
| - 015 | 0.062 | 0.042 | 0.030 | 0.050 | 0.011 \pm 0.003 | 0.020 | 0.060 | 0.072 | | | | | |
| - 115 | 1.6 | 1.1 | 0.76 | 1.3 | 0.28 \pm 0.08 | 0.51 | 1.5 | 1.8 | | | | | |

All dimensions are in / mm.
 Unless otherwise specified, the tolerance on dimensions is \pm 0.003/0.08.

Note: An SMLP package with three terminations sized to fit the pad layout for an SOT-23 package is also available. This package can be used for multiple diode designs (such as common cathode or common anode). Contact factory for the three-terminal SMLP outline drawing, and for further information on the multiple diode configurations.

HIGH Q ABRUPT TUNING VARACTOR DIODES

FEATURES

- Mesa epitaxial silicon construction
- Silicon dioxide passivated
- Economy price
- Mil grade performance
- High Q
- Available in common cathode style
- Available in chip form (add suffix -000)

APPLICATIONS

- Low phase noise VCOs

- Phase locked loop VCOs
- Moderate bandwidth VCOs

SPECIFICATIONS

Reverse breakdown voltage at 10 μ A DC (at 25°C): 30 V min

Maximum reverse leakage current at -25 V (at 25°C): 0.05 μ A DC

Device dissipation at 25°C: 250 mW (derated linearly to zero at +125°C)

Operating junction temperature: -55°C to +125°C

Storage temperature: -55°C to +125°C

| Total Capacitance C_T (pF) at -4 V ($\pm 10\%$) | Capacitance Ratio C_T at 0 V C_T at -30 V min | Q min at -4 V (50 MHz) | Model Number | |
|---|--|------------------------------|--------------|----------------|
| | | | Single | Common Cathode |
| 1.2 | 3.4 | 3200 | GVD1202-001 | GVD1202-004 |
| 1.5 | 3.5 | 3000 | GVD1203-001 | GVD1203-004 |
| 1.8 | 3.5 | 3000 | GVD1204-001 | GVD1204-004 |
| 2.2 | 3.7 | 3000 | GVD1205-001 | GVD1205-004 |
| 2.7 | 3.7 | 2500 | GVD1206-001 | GVD1206-004 |
| 3.3 | 3.8 | 2500 | GVD1207-001 | GVD1207-004 |
| 3.9 | 3.9 | 2500 | GVD1208-001 | GVD1208-004 |
| 4.7 | 3.9 | 2000 | GVD1209-001 | GVD1209-004 |
| 5.6 | 4.0 | 2000 | GVD1210-001 | GVD1210-004 |
| 6.8 | 4.0 | 2000 | GVD1211-001 | — |
| 8.2 | 4.0 | 2000 | GVD1212-001 | — |
| 10.0 | 4.1 | 1800 | GVD1213-001 | — |
| 12.0 | 4.1 | 1600 | GVD1214-001 | — |
| 15.0 | 4.2 | 1250 | GVD1215-001 | — |
| 18.0 | 4.2 | 1000 | GVD1216-001 | — |
| 22.0 | 4.2 | 850 | GVD1217-001 | — |



SOT-23 PACKAGE - Consult factory for additional package configurations.
 All dimensions are in / mm.
 Unless otherwise specified, the tolerance on dimensions is $\pm 0.004/0.1$.

MICROWAVE ABRUPT TUNING VARACTOR DIODES

Surface Mount Low Parasitic Package (SMLP)

FEATURES

- Mesa epitaxial silicon construction
- Silicon dioxide passivated
- Fits Footprint for SOD-323, SOD-123 and smaller
- High Frequency (VHF to 8 GHz)
- Available on carrier and reel
- Available in chip form (add suffix -000)
- Two package styles including lower cost, flat top version
- Alternate notched termination version available, contact factory for outline drawing

APPLICATIONS

- PCS
- WANS
- AMPS
- GSM
- TAGS
- DECT
- Cellular

SPECIFICATIONS

Reverse breakdown voltage at 10 μ A DC (at 25°C): 30 V min

Maximum reverse leakage current at -25 V (at 25°C): 0.05 μ A DC

Device dissipation at 25°C: 250 mW (derated linearly to zero at +125°C)

Operating junction temperature: -65°C to +125°C

Storage temperature: -65°C to +125°C

| Total Capacitance C_T (pF) at -4 V ($\pm 10\%$) | Capacitance Ratio $\frac{C_T \text{ at } 0 \text{ V}}{C_T \text{ at } -4 \text{ V}}$ min | Capacitance Ratio $\frac{C_T \text{ at } -4 \text{ V}}{C_T \text{ at } -30 \text{ V}}$ min | Q min at -4 V (50 MHz) | Model Number* |
|---|--|--|------------------------|----------------|
| 0.8 | 1.5 | 1.45 | 3900 | GVD91300 - --- |
| 1.0 | 1.6 | 1.55 | 3800 | GVD91301 - --- |
| 1.2 | 1.7 | 1.60 | 3700 | GVD91302 - --- |
| 1.5 | 1.8 | 1.65 | 3600 | GVD91303 - --- |
| 1.8 | 1.9 | 1.70 | 3500 | GVD91304 - --- |
| 2.2 | 2.0 | 1.75 | 3400 | GVD91305 - --- |
| 2.7 | 2.0 | 1.80 | 3300 | GVD91306 - --- |
| 3.3 | 2.1 | 1.85 | 3100 | GVD91307 - --- |
| 3.9 | 2.1 | 1.90 | 2700 | GVD91308 - --- |
| 4.7 | 2.2 | 1.95 | 2600 | GVD91309 - --- |
| 5.6 | 2.2 | 2.00 | 2500 | GVD91310 - --- |

*For complete model number, select "Dash No." from chart below.

| Dash No. | A | B | C ₁ | C ₂ | D | K | L | M |
|----------|-------|-------|----------------|----------------|-------------------|-------|-------|-------|
| - 011 | 0.10 | 0.050 | 0.035 | 0.050 | 0.015 \pm 0.004 | 0.030 | 0.070 | 0.112 |
| - 111 | 2.5 | 1.3 | 0.89 | 1.3 | 0.38 \pm 0.1 | 0.76 | 1.8 | 2.84 |
| - 012 | 0.12 | 0.060 | 0.035 | 0.050 | 0.020 \pm 0.005 | 0.030 | 0.080 | 0.132 |
| - 112 | 3.0 | 1.5 | 0.89 | 1.3 | 0.51 \pm 0.1 | 0.76 | 2.0 | 3.35 |
| - 013 | 0.200 | 0.100 | 0.035 | 0.050 | 0.020 \pm 0.005 | 0.030 | 0.120 | 0.212 |
| - 113 | 5.08 | 2.54 | 0.89 | 1.3 | 0.51 \pm 0.1 | 0.76 | 3.05 | 5.38 |
| - 014 | 0.075 | 0.050 | 0.035 | 0.050 | 0.015 \pm 0.004 | 0.030 | 0.070 | 0.087 |
| - 114 | 1.9 | 1.3 | 0.89 | 1.3 | 0.38 \pm 0.1 | 0.76 | 1.8 | 2.2 |
| - 015 | 0.062 | 0.042 | 0.030 | 0.050 | 0.011 \pm 0.003 | 0.020 | 0.060 | 0.072 |
| - 115 | 1.6 | 1.1 | 0.76 | 1.3 | 0.28 \pm 0.08 | 0.51 | 1.5 | 1.8 |

All dimensions are in / mm. Unless otherwise specified, the tolerance on dimensions is $\pm 0.003/0.08$.
 Note: An SMLP package with three terminations sized to fit the pad layout for an SOT-23 package is also available. This package can be used for multiple diode designs (such as common cathode or common anode). Contact factory for the three-terminal SMLP outline drawing, and for further information on the multiple diode configurations.

MINIATURE MICROWAVE SILICON VARACTOR DIODES

Surface Mount Monolithic Package (SMMP)

FEATURES

- Multilayer construction
- Low SMT profile
- Low series inductance
- Low parasitic capacitance (0.06 pF)
- High Q
- Available on carrier and reel

APPLICATIONS

Microwave Voltage Controlled Oscillators (VCOs)
Ideal for Wide Bandwidth Applications (VHF-10 GHz)

SPECIFICATIONS

Reverse breakdown voltage at 10 μ A DC
(at 25°C): See below

Maximum reverse leakage current at -10 V
(at 25°C): 0.05 μ A DC

Operating junction temperature: -65°C to +125°C

Storage temperature: -65°C to +125°C

| Total Capacitance C_T (pF) at -1 V | | Capacitance Ratio $\frac{C_T \text{ at } -1 \text{ V}}{C_T \text{ at } -3 \text{ V}}$ | | Capacitance Ratio $\frac{C_T \text{ at } -1 \text{ V}}{C_T \text{ at } -6 \text{ V}}$ | | Q min at -4 V (50 MHz) | Model Number |
|---|-----|--|-----|--|-----|------------------------------|-----------------|
| min | max | min | max | min | max | | |
| 2.6 | 3.8 | 1.4 | 2.2 | 2.6 | 3.6 | 1500 | GVD60100 |

Reverse breakdown voltage at 10 μ A DC: 15 V min

| Total Capacitance C_T (pF) at -0 V typical | Total Capacitance C_T (pF) at -4 V | | Total Capacitance C_T (pF) at -20 V | | Q min at -4 V (50 MHz) | Model Number |
|--|---|-----|--|------|------------------------------|-----------------|
| | min | max | max | max | | |
| 3.25 | 0.9 | 1.5 | 0.2 | 0.45 | 1000 | GVD60200 |

Reverse breakdown voltage at 10 μ A DC: 22 V min

Models shown above supplied bulk in vials.
For 300 pc gel pack, add "-03" to the model number.
For 5000 pc carrier and reel, add "-50" to the model number.



All dimensions are in /mm.
Unless otherwise specified, the tolerance on dimensions is $\pm 0.004 / 0.1$.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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