



Micro Commercial Components



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 20736 Marilla Street Chatsworth
 CA 91311
 Phone: (818) 701-4933
 Fax: (818) 701-4939

SF11G Thru SF18G

Features

- Super Fast Switching Speed
- Marking : Type Number
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

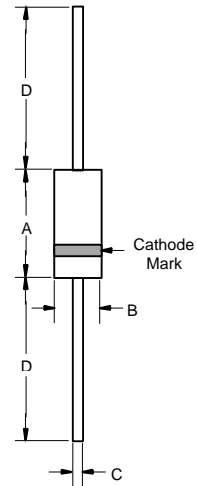
Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Typical Thermal Resistance: 80.0°C/W Junction To Ambient

| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|--|---------------------|-----------------------------|
| SF11G | 50V | 35V | 50V |
| SF12G | 100V | 70V | 100V |
| SF13G | 150V | 105V | 150V |
| SF14G | 200V | 140V | 200V |
| SF15G | 300V | 210V | 300V |
| SF16G | 400V | 280V | 400V |
| SF18G | 600V | 420V | 600V |

1.0 Amp Glass Passivated Super Fast Recovery Rectifiers 50 to 600 Volts

DO-41



Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|--|-------------|-------------------------|---|
| Average Forward Current | $I_{F(AV)}$ | 1.0A | $T_L = 85^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 30.0A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage SF11G-SF14G SF15G-SF16G SF18G | V_F | 0.95V 1.30V 1.70V | $I_{FM} = 1.0A$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 5.0μA 100μA | $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$ |
| Maximum Reverse Recovery Time | T_{RR} | 35.0nS | $I_F=0.5A, I_R=1.0A,$ $I_{RR}=0.25A$ |
| Typical Junction Capacitance SF11G-SF14G SF15G-SF18G | C_J | 20pF 10pF | Measured at 1.0MHz, $V_R=4.0V$ |

| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|-------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .166 | .205 | 4.10 | 5.20 | |
| B | .080 | .107 | 2.00 | 2.70 | |
| C | .028 | .034 | .70 | .90 | |
| D | 1.000 | --- | 25.40 | --- | |

Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

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FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

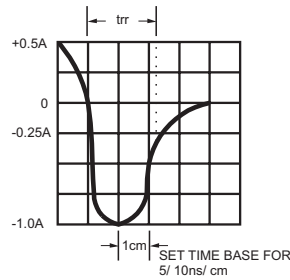
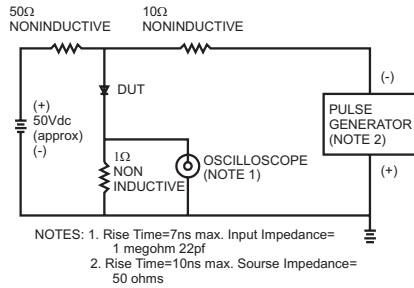


FIG.2- MAXIMUM AVERAGE FORWARD CURRENT DERATING

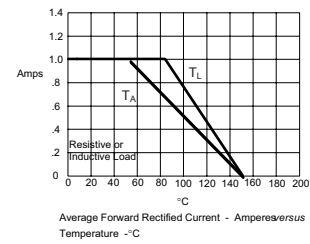


FIG.3- TYPICAL REVERSE CHARACTERISTICS

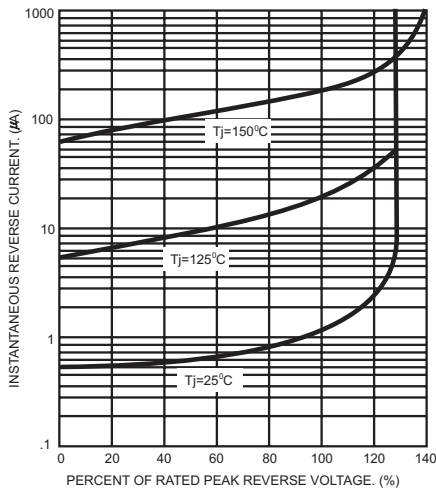


FIG.4- TYPICAL FORWARD CHARACTERISTICS

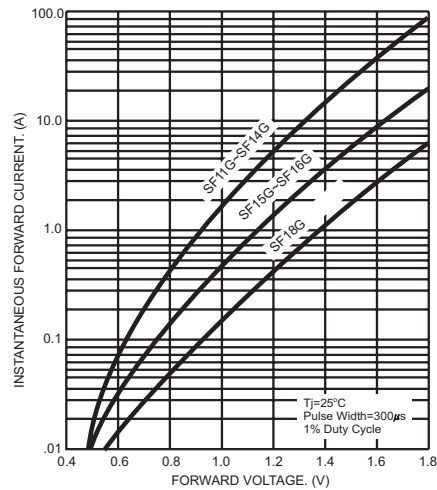


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

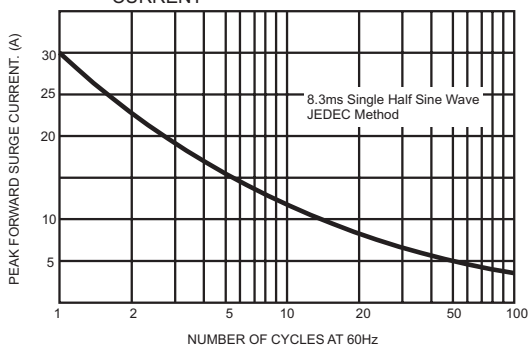
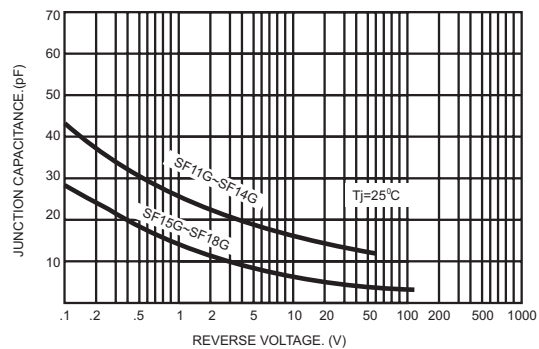


FIG.6- TYPICAL JUNCTION CAPACITANCE



Ordering Information :

| Device | Packing |
|----------------|------------------------------|
| Part Number-TP | Tape&Reel: 5Kpcs/Reel |
| Part Number-AP | Ammo Packing: 5Kpcs/Ammo Box |
| Part Number-BP | Bulk: 50Kpcs/Carton |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.