

CMRSH-4DO

**SURFACE MOUNT SILICON
DUAL, ISOLATED, OPPOSING
SCHOTTKY DIODE**



www.centrasemi.com



DESCRIPTION: The CENTRAL SEMICONDUCTOR CMRSH-4DO are dual, isolated, opposing high quality Schottky diodes designed for applications where very small size and operational efficiency are prime requirements.

MARKING CODE: CV

FEATURES:

- Current ($I_O=200\text{mA}$)
- Low forward voltage drop ($V_F=0.35\text{V TYP @ } 1.0\text{mA}$)
- Low reverse current ($25\text{nA TYP @ } 30\text{V}$)
- Extremely fast switching (5.0ns MAX)
- Small $1.0 \times 1.0 \times 0.5\text{mm SOT-963}$ surface mount package
- Versatile multi-configurable device

APPLICATIONS:

- DC-DC converters
- Voltage clamping
- Protection circuits
- Battery charging circuits

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

Peak Repetitive Reverse Voltage
 Average Forward Current
 Peak Forward Surge Current, $t_p=8.3\text{ms}$
 Power Dissipation
 Operating Junction Temperature
 Storage Temperature
 Thermal Resistance

SYMBOL

V_{RRM} 40
 I_O 200
 I_{FSM} 600
 P_D 125
 T_J -65 to +125
 T_{stg} -65 to +150
 Θ_{JA} 800

UNITS

V
 mA
 mA
 mW
 $^\circ\text{C}$
 $^\circ\text{C}$
 $^\circ\text{C/W}$

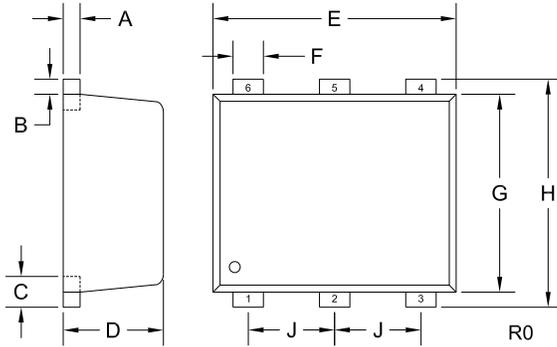
ELECTRICAL CHARACTERISTICS PER DIODE: ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=30\text{V}$		25	200	nA
BV_R	$I_R=10\mu\text{A}$	40			V
V_F	$I_F=1.0\text{mA}$		0.35	0.38	V
V_F	$I_F=15\text{mA}$		0.55	0.65	V
V_F	$I_F=40\text{mA}$		0.77	1.00	V
C_J	$V_R=0, f=1.0\text{MHz}$			5.0	pF
t_{rr}	$I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$			5.0	ns

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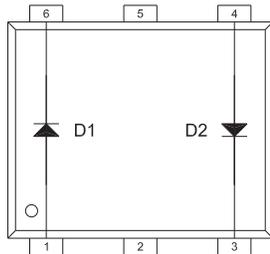
SOT-963 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.002	0.006	0.050	0.150
B	0.002	0.006	0.050	0.150
C	0.005	0.007	0.125	0.175
D	0.016	0.020	0.400	0.500
E	0.037	0.041	0.950	1.050
F	0.004	0.008	0.100	0.200
G	0.030	0.033	0.750	0.850
H	0.037	0.041	0.950	1.050
J	0.014		0.350	

SOT-963 (REV: R0)

PIN CONFIGURATION

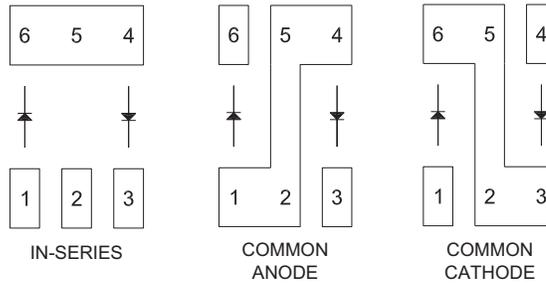


LEAD CODE:

- 1) Anode D1
- 2) NC
- 3) Cathode D2
- 4) Anode D2
- 5) NC
- 6) Cathode D1

MARKING CODE: CV

SUGGESTED MOUNTING PAD CONFIGURATIONS



Note:

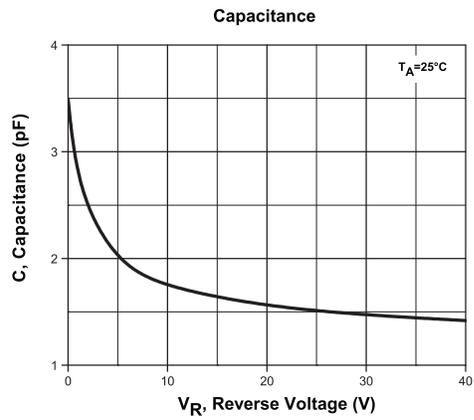
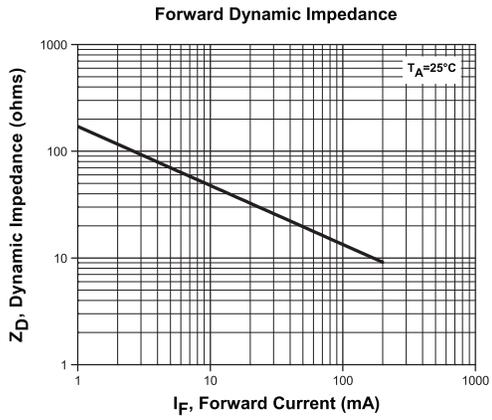
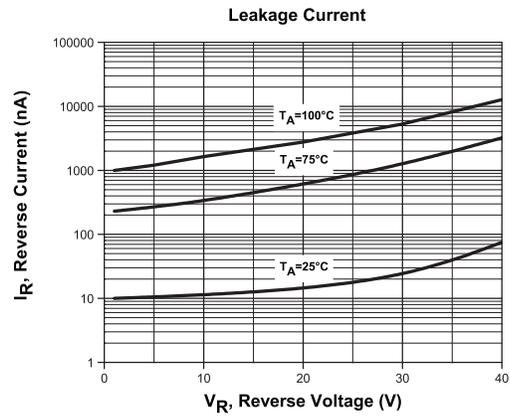
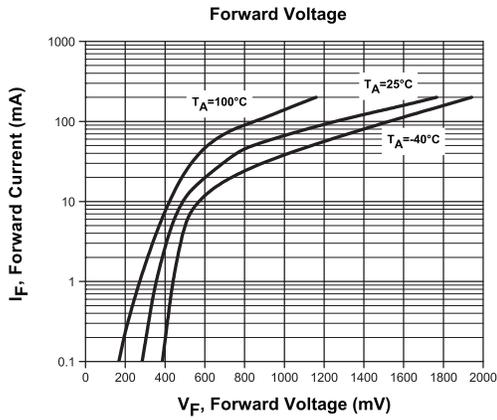
Two devices easily configurable as a bridge rectifier.

R2 (3-August 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS

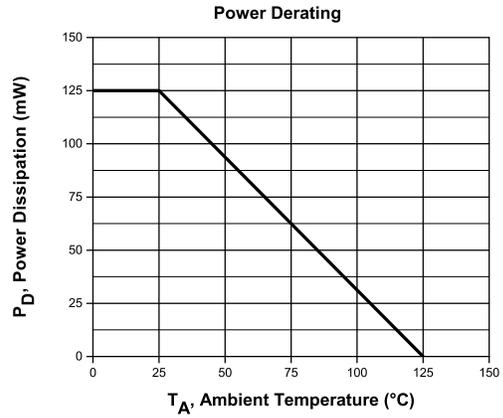
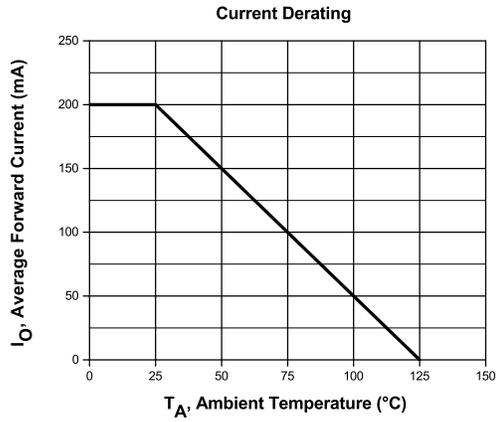


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SERVICES

- Bonded Inventory
- Custom Electrical Screening
- Custom Electrical Characteristic Curves
- SPICE Models
- Custom Packaging
- Package Base Options
- Custom Device Development/ Multi Discrete Modules (MDM™)
- Bare Die Available for Hybrid Applications

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R2 (3-August 2015)



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- Оперативные сроки поставки под заказ (от 5 рабочих дней);
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- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
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- 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.);

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- 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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