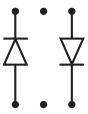


CMRSH-4DO

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

**SOT-963 CASE**

www.centralsemi.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 ($V_F=0.35\text{V TYP @ 1.0mA}$)
- Low reverse current (25nA TYP @ 30V)
- Extremely fast switching (5.0ns MAX)
- Small 1.0 x 1.0 x 0.5mm SOT-963 surface mount package
- Versatile multi-configurable device

APPLICATIONS:

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

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

	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Average Forward Current	I_O	200	mA
Peak Forward Surge Current, $t_p=8.3\text{ms}$	I_{FSM}	600	mA
Power Dissipation	P_D	125	mW
Operating Junction Temperature	T_J	-65 to +125	$^\circ\text{C}$
Storage Temperature	T_{stg}	-65 to +150	$^\circ\text{C}$
Thermal Resistance	Θ_{JA}	800	$^\circ\text{C}/\text{W}$

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

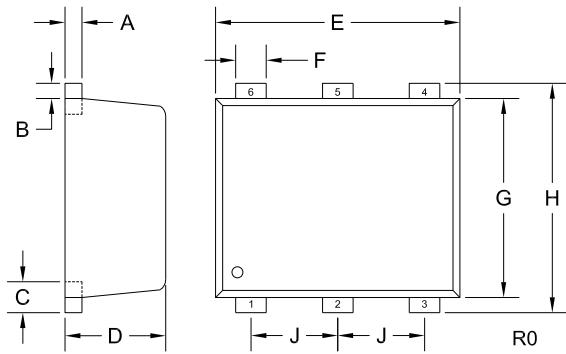
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=30\text{V}$		25	200	nA
BV_R	$I_R=10\mu\text{A}$	40			V
V_F	$I_F=1.0\text{mA}$		0.35	0.38	V
V_F	$I_F=15\text{mA}$		0.55	0.65	V
V_F	$I_F=40\text{mA}$		0.77	1.00	V
C_J	$V_R=0$, $f=1.0\text{MHz}$			5.0	pF
t_{rr}	$I_F=I_R=10\text{mA}$, $I_{rr}=1.0\text{mA}$,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

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Central
Semiconductor Corp.™

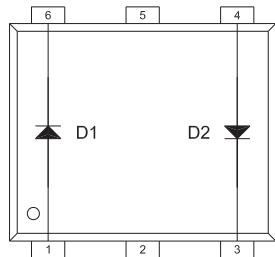
SOT-963 CASE - MECHANICAL OUTLINE



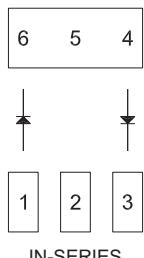
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.002	0.006	0.050	0.150
B	0.002	0.006	0.050	0.150
C	0.005	0.007	0.125	0.175
D	0.016	0.020	0.400	0.500
E	0.037	0.041	0.950	1.050
F	0.004	0.008	0.100	0.200
G	0.030	0.033	0.750	0.850
H	0.037	0.041	0.950	1.050
J	0.014		0.350	

SOT-963 (REV: R0)

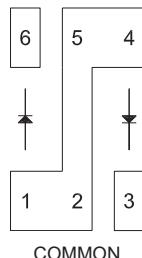
PIN CONFIGURATION



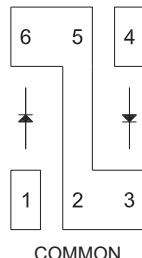
SUGGESTED MOUNTING PAD CONFIGURATIONS



IN-SERIES



COMMON ANODE



COMMON CATHODE

LEAD CODE:

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

Note:

Two devices easily configurable
as a bridge rectifier.

MARKING CODE: CV

R2 (3-August 2015)

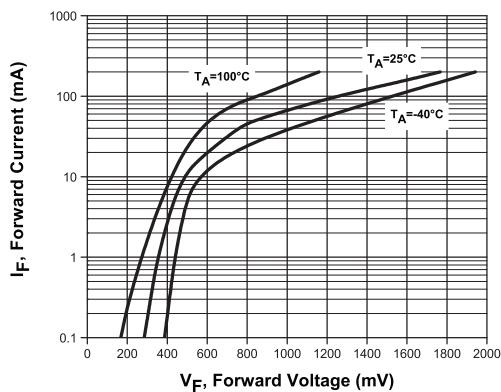
CMRSH-4DO

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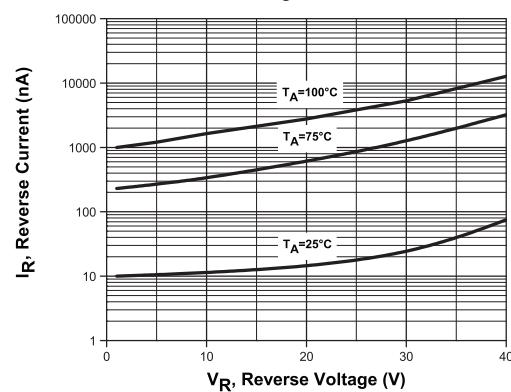


TYPICAL ELECTRICAL CHARACTERISTICS

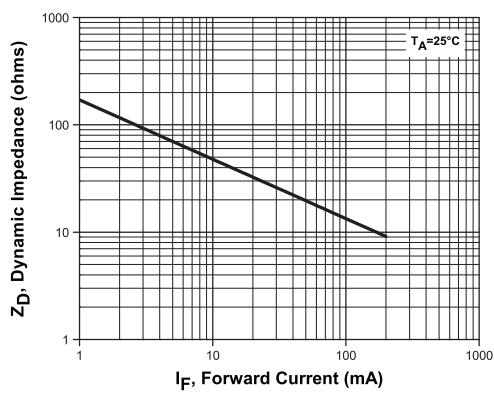
Forward Voltage



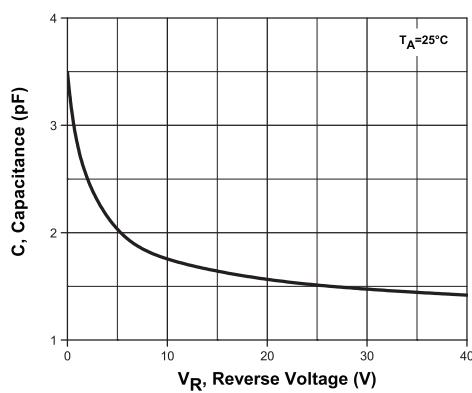
Leakage Current



Forward Dynamic Impedance



Capacitance



R2 (3-August 2015)

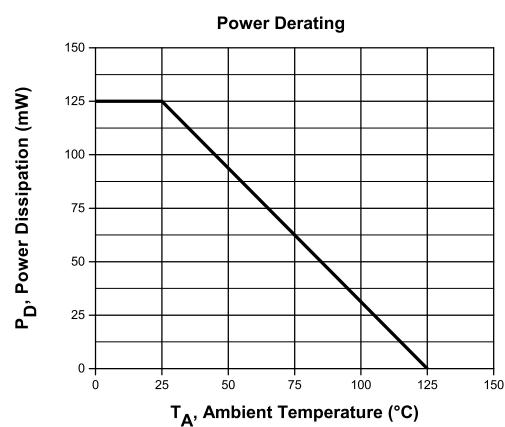
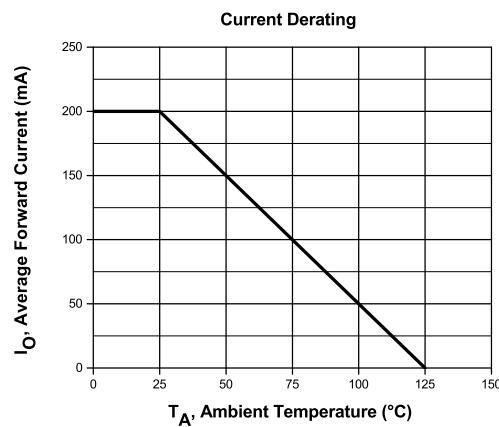
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TYPICAL ELECTRICAL CHARACTERISTICS



R2 (3-August 2015)

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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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