



CMRSH-4DO

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

FEMTOmini™



SOT-963 CASE



Central™

Semiconductor Corp.

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 $1.0 \times 1.0 \times 0.5\text{mm SOT-963 FEMTOmini™}$ Surface Mount Package
- Versatile multi-configurable device

APPLICATIONS:

- DC/DC Converters
- Voltage Clamping
- Protection Circuits
- Battery Powered Portable Devices

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

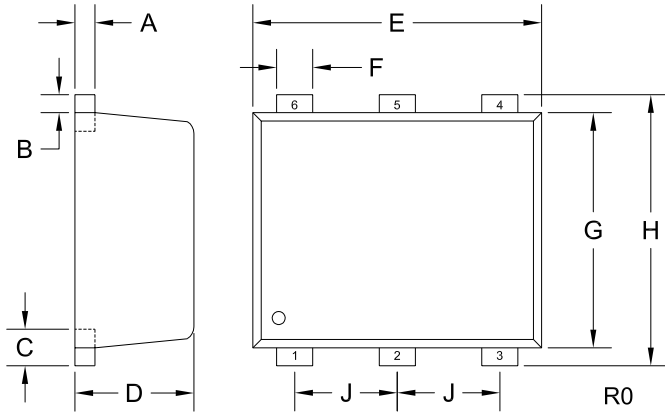
Peak Repetitive Reverse Voltage
Average Forward Current
Forward Surge Current, $t_p=8.3\text{ms}$
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL		UNITS
V_{RRM}	40	V
I_O	200	mA
I_{FSM}	600	mA
P_D	125	mW
T_J, T_{stg}	-65 to +125	$^\circ\text{C}$
Θ_{JA}	800	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ 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_T	$V_R=0\text{V}, f=1.0\text{ MHz}$			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

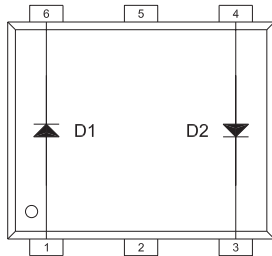
SOT-963 CASE - MECHANICAL OUTLINE



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

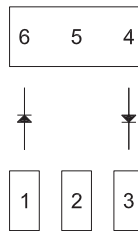


LEAD CODE:

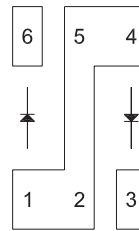
- 1) ANODE D1
- 2) NC
- 3) CATHODE D2
- 4) ANODE D2
- 5) NC
- 6) CATHODE D1

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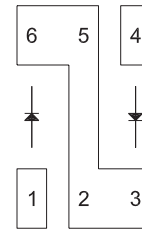
SUGGESTED MOUNTING PAD CONFIGURATIONS



IN-SERIES



COMMON ANODE



COMMON CATHODE

Note:

Two devices easily configurable as a bridge rectifier.

