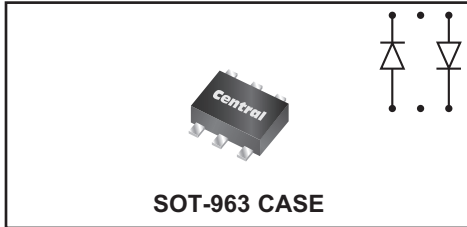


CMRSH-4DO
**SURFACE MOUNT SILICON
DUAL, ISOLATED, OPPOSING
SCHOTTKY DIODE**



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

SYMBOL		UNITS
V_{RRM}	40	V
I_O	200	mA
I_{FSM}	600	mA
P_D	125	mW
T_J	-65 to +125	$^\circ\text{C}$
T_{stg}	-65 to +150	$^\circ\text{C}$
Θ_{JA}	800	$^\circ\text{C/W}$

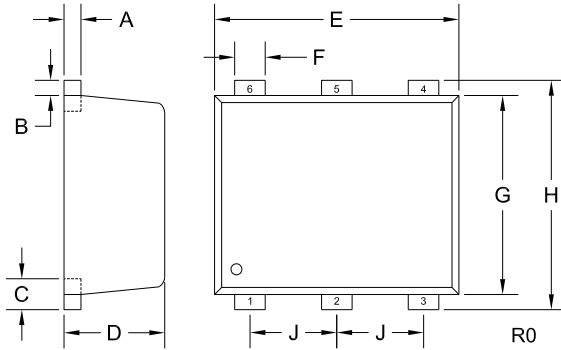
ELECTRICAL CHARACTERISTICS PER DIODE: ($T_A=25^\circ\text{C}$ unless otherwise noted)

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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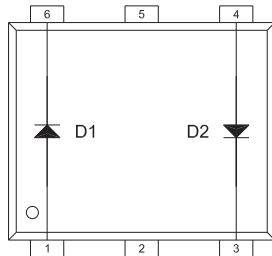
SOT-963 CASE - MECHANICAL OUTLINE



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

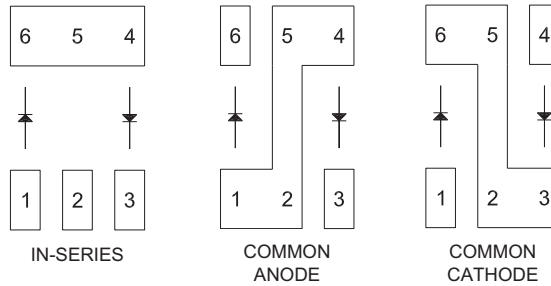


LEAD CODE:

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

MARKING CODE: CV

SUGGESTED MOUNTING PAD CONFIGURATIONS



Note:

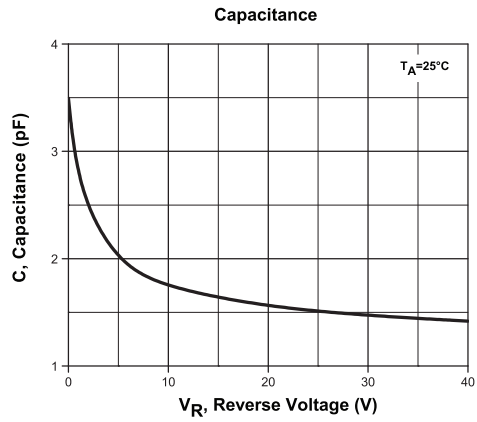
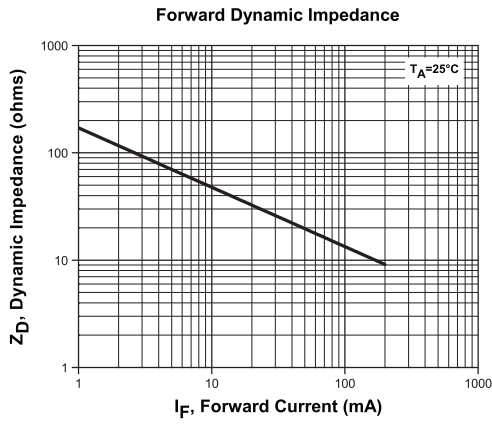
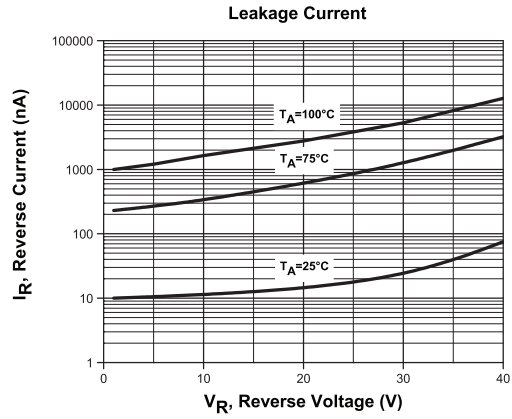
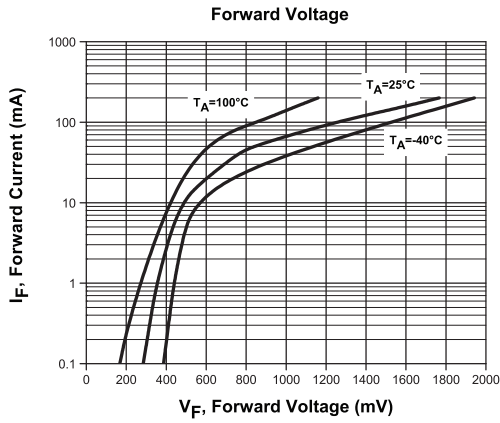
Two devices easily configurable as a bridge rectifier.

R2 (3-August 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS

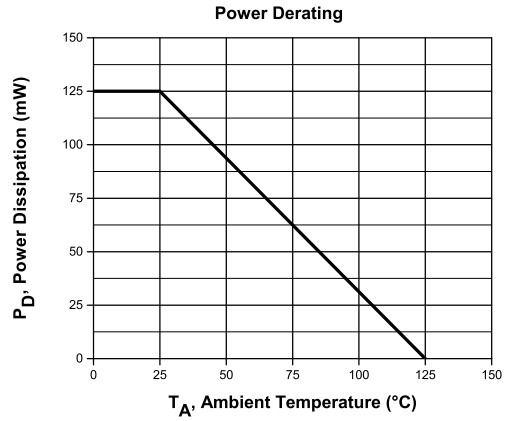
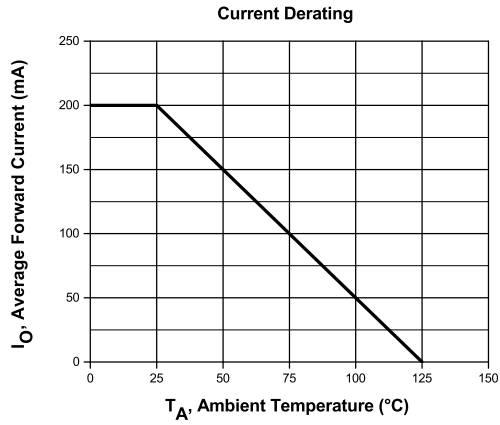


R2 (3-August 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



R2 (3-August 2015)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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