

CMOSH-3

SURFACE MOUNT SILICON
SCHOTTKY DIODE



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMOSH-3 is a silicon Schottky diode, epoxy molded in an SOD-523 surface mount package, designed for fast switching applications requiring a low forward voltage drop.



SOD-523 CASE

MARKING CODE: 53

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

	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Continuous Forward Current	I_F	100	mA
Peak Repetitive Forward Current	I_{FRM}	350	mA
Peak Forward Surge Current, $t_p=10\text{ms}$	I_{FSM}	750	mA
Power Dissipation	P_D	250	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
Thermal Resistance	Θ_{JA}	500	$^\circ\text{C}/\text{W}$

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

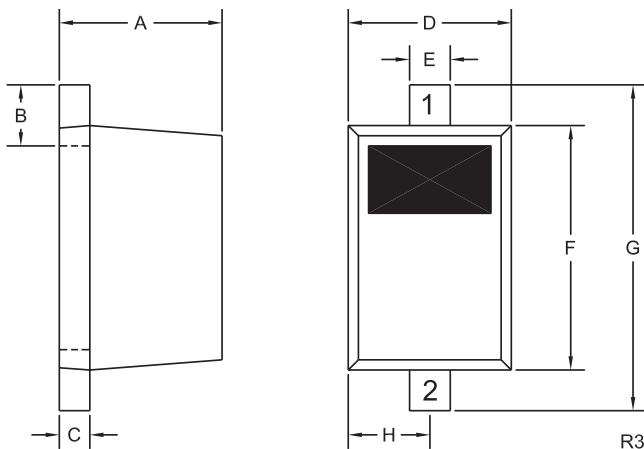
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=25\text{V}$		90	500	nA
I_R	$V_R=25\text{V}, T_A=100^\circ\text{C}$		25	100	μA
BV_R	$I_R=100\mu\text{A}$	30			V
V_F	$I_F=2.0\text{mA}$		0.29	0.33	V
V_F	$I_F=15\text{mA}$		0.37	0.45	V
V_F	$I_F=100\text{mA}$		0.51	1.00	V
C_J	$V_R=1.0\text{V}, f=1.0\text{MHz}$		7.0		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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SOD-523 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Cathode
- 2) Anode

MARKING CODE: 53

SYMBOL	DIMENSIONS		INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX	MIN	MAX
A	0.020	0.031	0.50	0.80		
B	0.008	0.016	0.20	0.40		
C	0.002	0.008	0.05	0.20		
D	0.028	0.035	0.70	0.90		
E	0.008	0.014	0.20	0.35		
F	0.039	0.055	1.00	1.40		
G	0.055	0.071	1.40	1.80		
H		0.016		0.40		

SOD-523 (REV: R3)

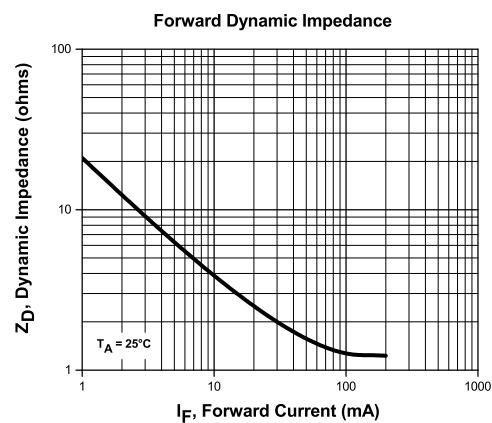
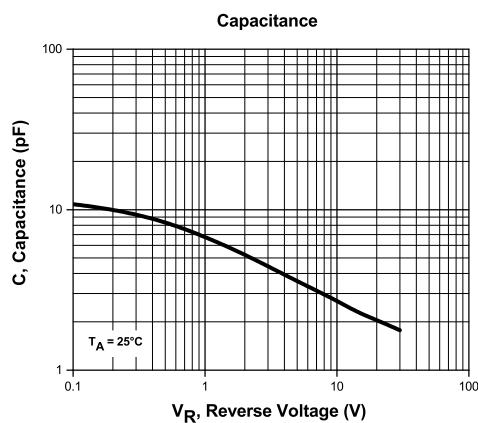
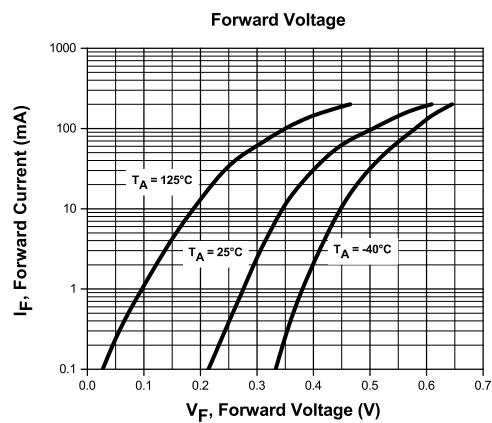
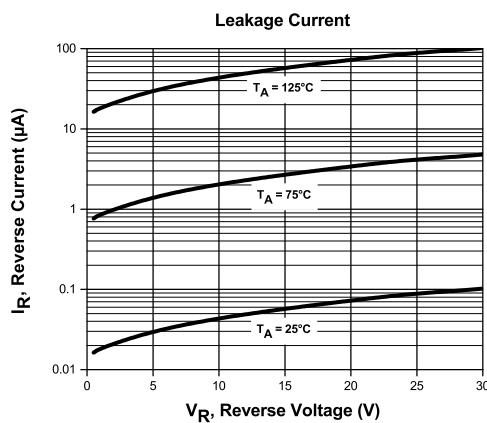
R6 (11-February 2016)

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TYPICAL ELECTRICAL CHARACTERISTICS



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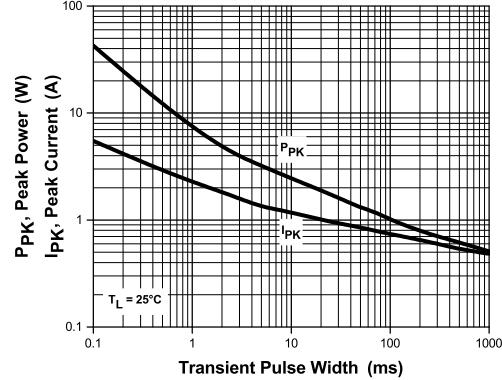
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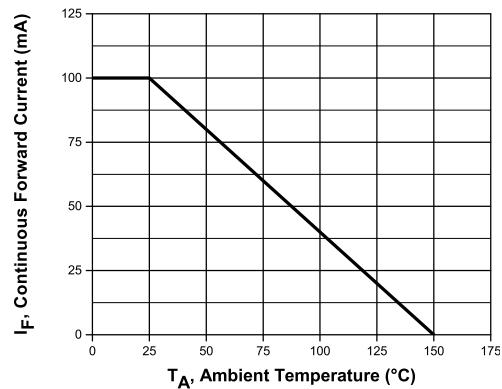


TYPICAL ELECTRICAL CHARACTERISTICS

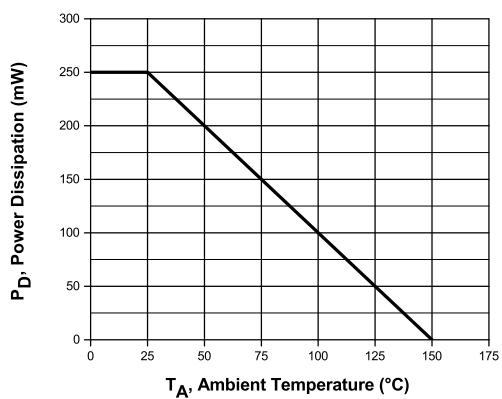
Transient Peak Power and Peak Current Capacity



Current Derating



Power Derating



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- Custom product packing

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- Up-screening capabilities
- Special wafer diffusions
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- Application notes
- Application and design sample kits
- Custom product and package development

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