

WSB5512M

5A, Schottky Barrier Diode

Features

- Schottky barrier rectifier
- Guarding protection
- Low forward voltage
- Reverse energy tested
- High current capability
- Extremely low thermal resistance
- Standard products are Pb-free and Halogen-free



SMA (DO-214AC)



. EE = Device code

* = Month code (A~Z)

Pin configuration and Marking

MECHANICAL DATA

- Case: SMA molded plastic body
- Polarity: Color band denotes cathode end
- Mounting position: ANY

Order information

Device	Package	Shipping
WSB5512M-2/TR	SMA (DO-214AC)	5000/Tape&Reel

Absolute maximum ratings

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RWS}	28	V
Maximum DC blocking voltage	V_{DC}	40	V
Maximum average forward rectified current at T_L (Fig.2)	$I_{F(AV)}$	5.0	A
Peak forward surge current 8.3ms single half-sine-wave	I_{FSM}	150	A
Operating temperature range	T_J	-55 ~ 125	°C
Storage temperature range	T_{STG}	-55 ~ 150	°C

Thermal Characteristics

Parameter	Symbol	Value	Unit
Maximum thermal resistance (Junction to Lead)(Fig.2)	$R_{\theta JL}$	14	°C/W

Electronics characteristics ($T_A=25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Maximum instantaneous forward voltage @ $I_F=5.0\text{A}^*$	V_F	0.55	V
Maximum reverse current @ V_{DC} ($T_J=25^\circ\text{C}$)	I_R	0.5	mA
Maximum reverse current @ V_{DC} ($T_J=100^\circ\text{C}$)	I_R	50	mA

*: Pulse test, Pulse width 300us, duty cycle 1 %

WSB5512M

Typical characteristics (Ta=25°C, unless otherwise noted)

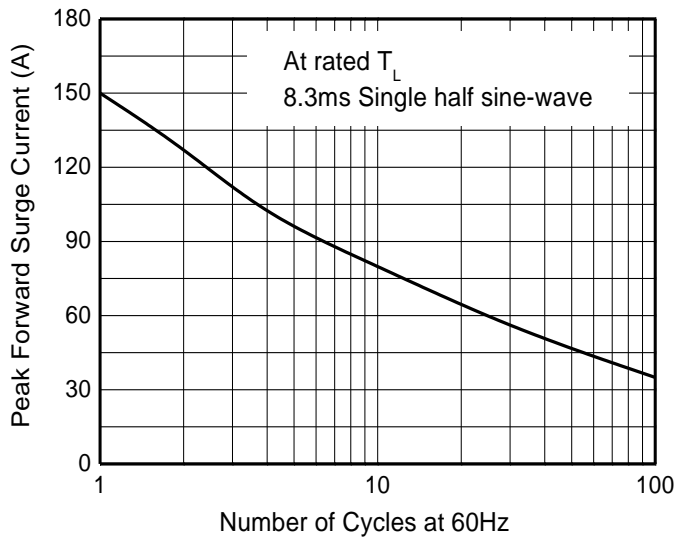


Fig.1: Peak Forward Surge Current

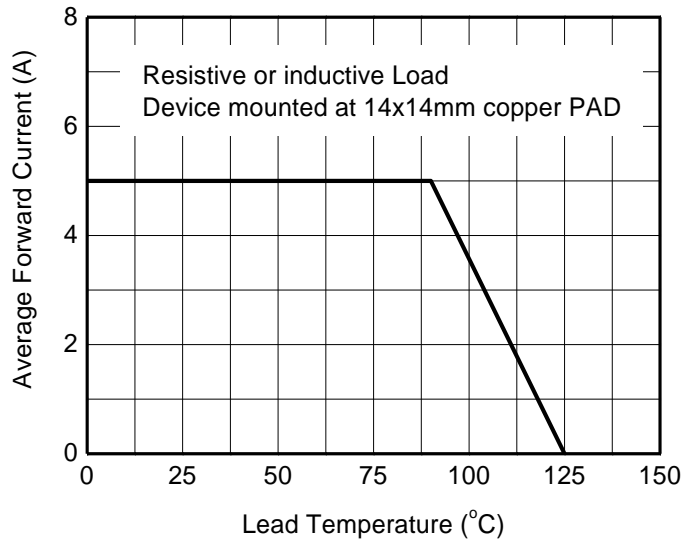


Fig.2: Power Derating Curve

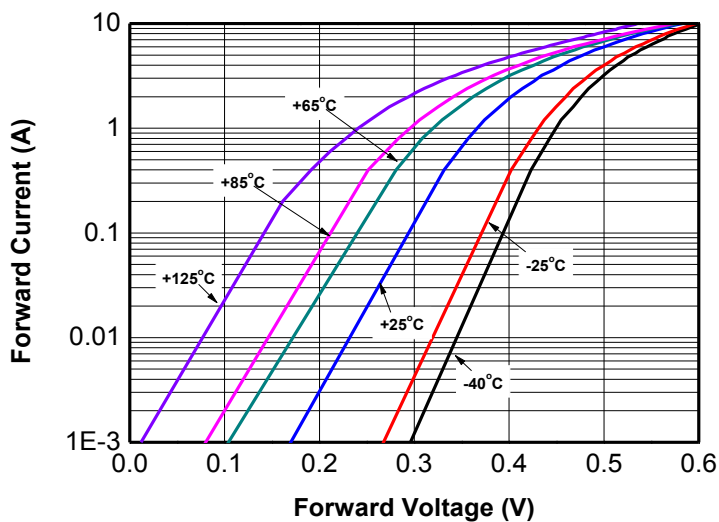


Fig.3: Typical Forward Characteristics

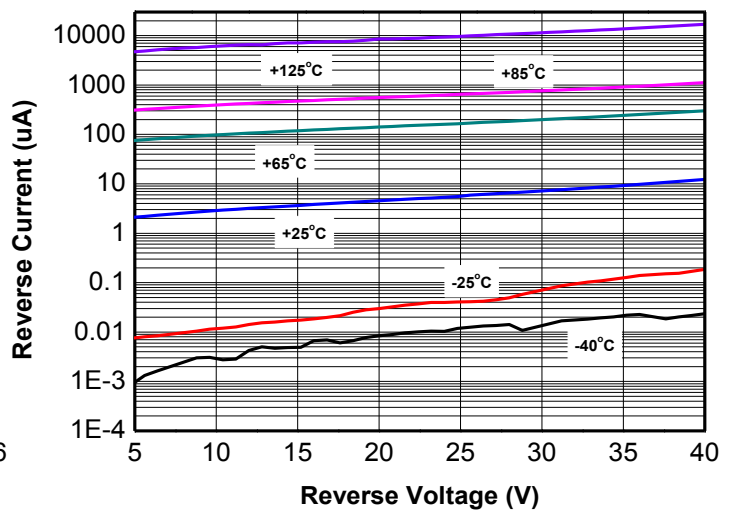


Fig.4: Typical Reverse Characteristics

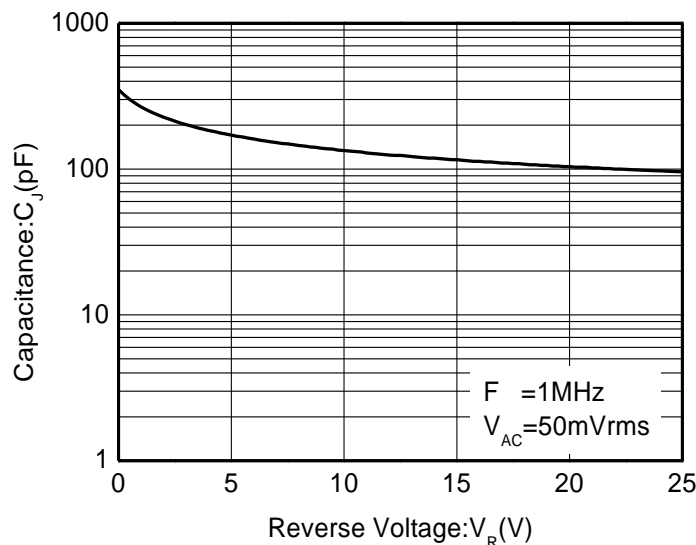
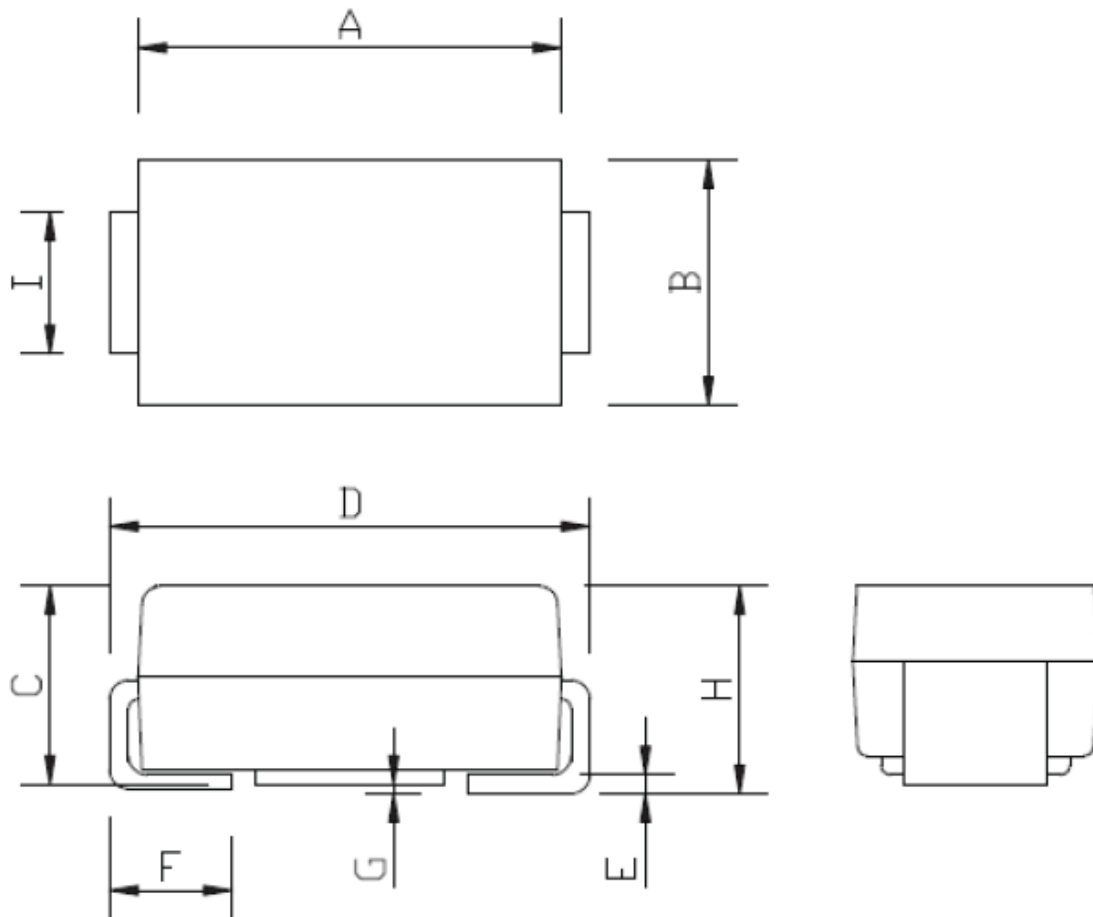


Fig.5: Junction capacitance Vs. Reverse voltage

Package outline dimensions

SMA (DO-214AC)



Symbol	Dimensions in millimeter	
	Min.	Max.
A	4.25	4.65
B	2.40	2.80
C	1.85	2.15
D	4.85	5.35
E	0.10	0.30
F	0.90	1.50
G	0.20 Max.	
H	1.90	2.30
I	1.35	1.65