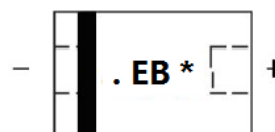


WSB5510M
2A, Schottky Barrier Diode
[Http://www.sh-willsemi.com](http://www.sh-willsemi.com)
Features

- 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)

. EB = 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
WSB5510M-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)	$I_{F(AV)}$	2.0	A
Peak forward surge current 8.3ms single half-sine-wave	I_{FSM}	50	A
Operating temperature range	T_J	-55 ~ 125	°C
Storage temperature range	T_{STG}	-55 ~ 150	°C

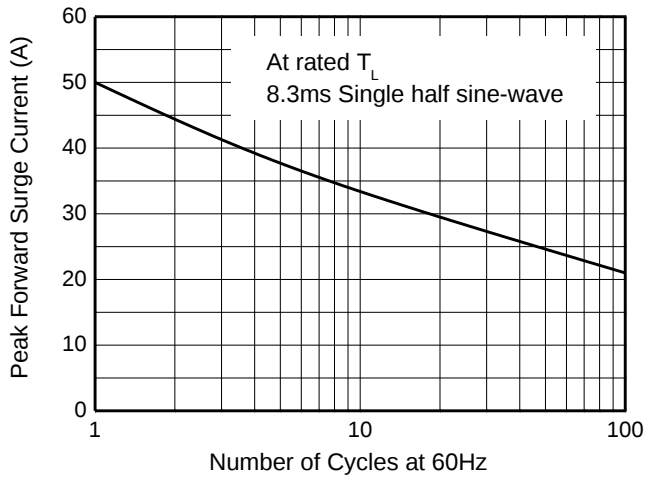
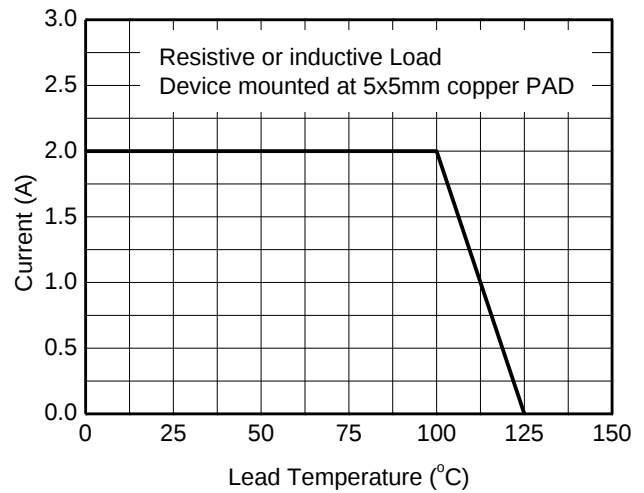
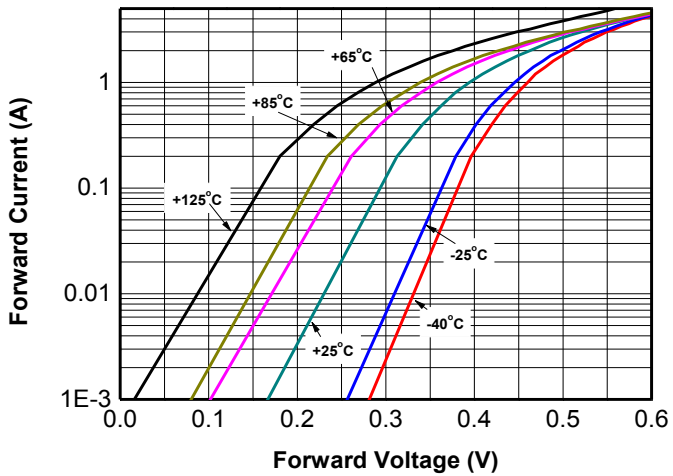
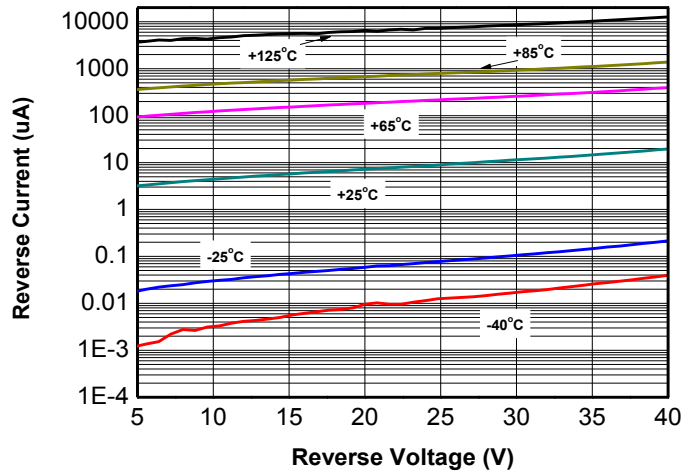
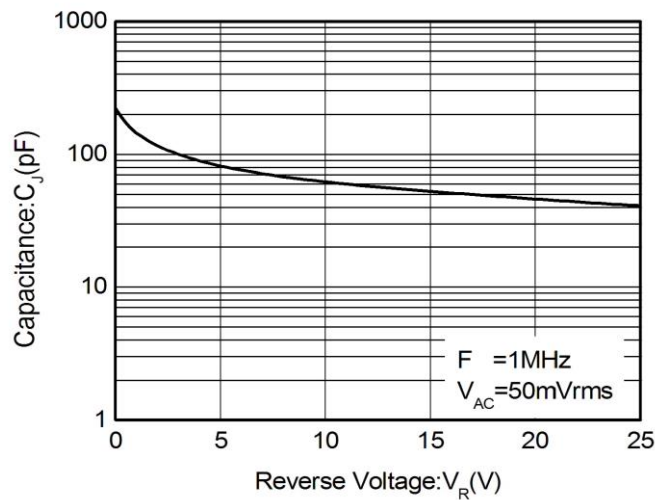
Thermal Characteristics

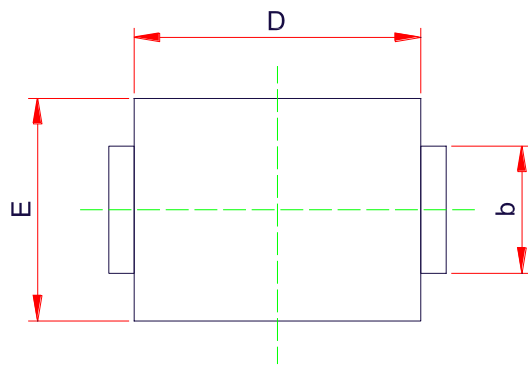
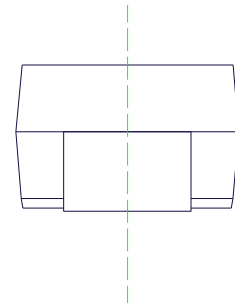
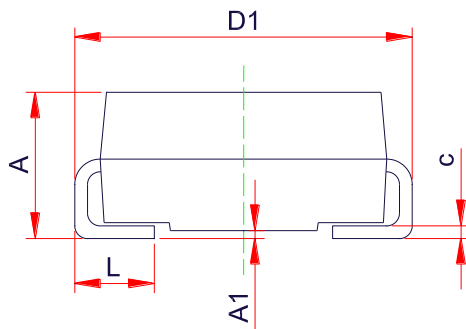
Parameter	Symbol	Value	Unit
Maximum thermal resistance (Junction to Lead)(Fig.2)	$R_{\theta JL}$	24	°C/W

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

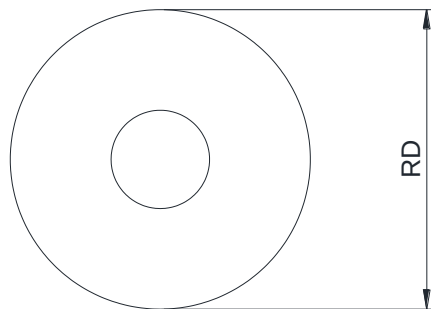
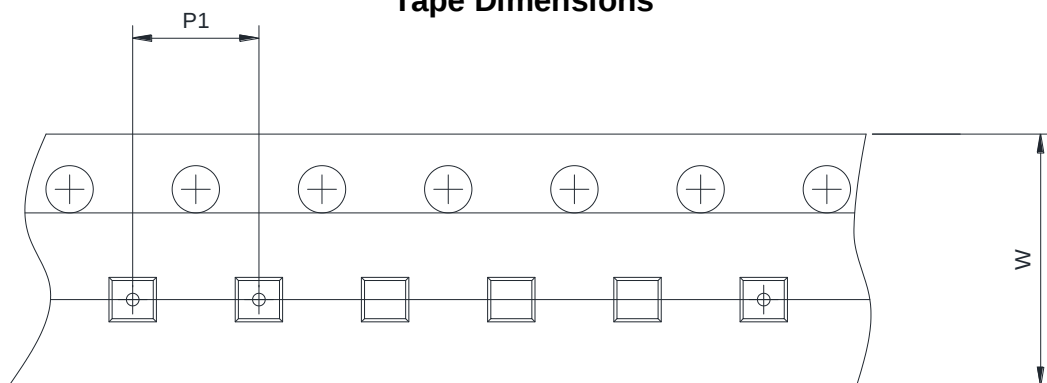
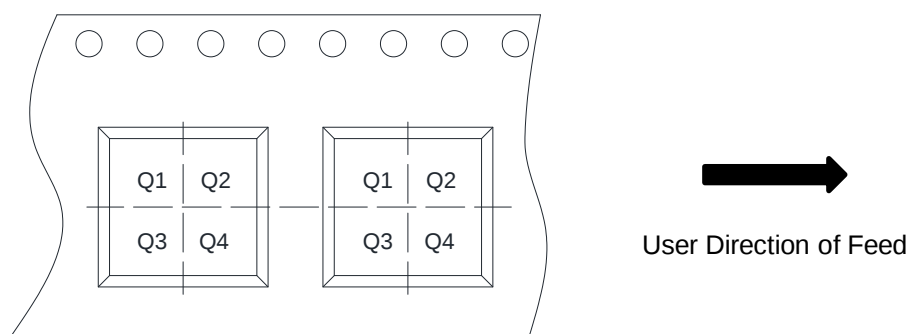
Parameter	Symbol	Value	Unit
Maximum instantaneous forward voltage @ $I_F=2.0\text{A}^*$	V_F	0.54	V
Maximum reverse current @ V_{DC} ($T_J=25^{\circ}\text{C}$)	I_R	0.4	mA
Maximum reverse current @ V_{DC} ($T_J=100^{\circ}\text{C}$)	I_R	10	mA

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

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

TOP VIEW

SIDE VIEW

SIDE VIEW

Symbol	Dimensions in millimeters	
	Min.	Max.
A	1.90	2.50
A1	0.203 MAX	
D	3.90	4.70
D1	4.75	5.35
E	2.40	2.85
c	0.10	0.31
b	1.27	1.95
L	0.76	1.55

TAPE AND REEL INFORMATION
Reel Dimensions

Tape Dimensions

Quadrant Assignments For PIN1 Orientation In Tape


RD	Reel Dimension	☐ 7inch	☒ 13inch
W	Overall width of the carrier tape	☐ 8mm	☒ 12mm ☐ 16mm
P1	Pitch between successive cavity centers	☐ 2mm	☒ 4mm ☐ 8mm
Pin1	Pin1 Quadrant	☒ Q1	☒ Q2 ☐ Q3 ☐ Q4