

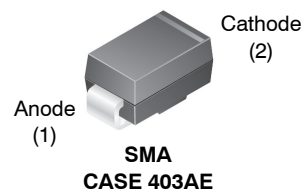
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Features

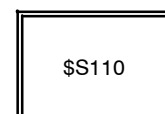
- Glass–Passivated Junctions
- High–Current Capability, Low V_F
- These Devices are Pb–Free, Halogen Free and are RoHS Compliant

Applications

- Low Voltage
- High–Frequency Inverters
- Free Wheeling
- Polarity Protection



MARKING DIAGRAM



ORDERING INFORMATION

Part Number	Top Mark	Package	Shipping [†]
SS12	SS12	SMA (Pb–Free/Halogen Free)	2000 / Tape & Reel
SS13	SS13	SMA (Pb–Free/Halogen Free)	2000 / Tape & Reel
SS14	SS14	SMA (Pb–Free/Halogen Free)	2000 / Tape & Reel
SS15	SS15	SMA (Pb–Free/Halogen Free)	2000 / Tape & Reel
SS16	SS16	SMA (Pb–Free/Halogen Free)	2000 / Tape & Reel
SS18	SS18	SMA (Pb–Free/Halogen Free)	2000 / Tape & Reel
SS19	SS19	SMA (Pb–Free/Halogen Free)	2000 / Tape & Reel
S100	S100	SMA (Pb–Free/Halogen Free)	2000 / Tape & Reel

Specifications

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value								Unit
		SS12	SS13	SS14	SS15	SS16	SS18	SS19	S100	
V_{RRM}	Peak Repetitive Reverse Voltage	20	30	40	50	60	80	90	100	V
$I_{F(AV)}$	Maximum Average Forward Current: 0.375-inch Lead Length at $T_A = 75^\circ\text{C}$	1.0								A
I_{FSM}	Non-Repetitive Peak Forward Surge Current: 8.3 ms Single Half-Sine Wave	40								A
T_J	Operating Junction Temperature	-65 to $+125$								$^\circ\text{C}$
T_{STG}	Storage Temperature Range	-65 to $+150$								$^\circ\text{C}$

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

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

Symbol	Characteristic	Value	Unit
P_D	Power Dissipation	1.1	W
$R_{\theta JA}$	Thermal Resistance, Junction-to-Ambient (Note 1)	88	$^\circ\text{C/W}$

1. Device mounted on FE-4 PCB 0.013 mm.

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

Symbol	Parameter	Conditions	Value								Unit
			SS12	SS13	SS14	SS15	SS16	SS18	SS19	S100	
V _F	Maximum Forward Voltage	I _F = 1.0 A	500			700		850			mV
I _R	Maximum Reverse Current at Rated V _R	T _A = 25°C	0.2								mA
		T _A = 100°C	10								

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

TYPICAL PERFORMANCE CHARACTERISTICS

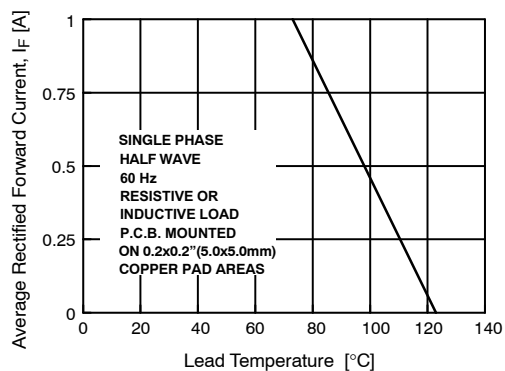


Figure 1. Forward Current Derating Curve

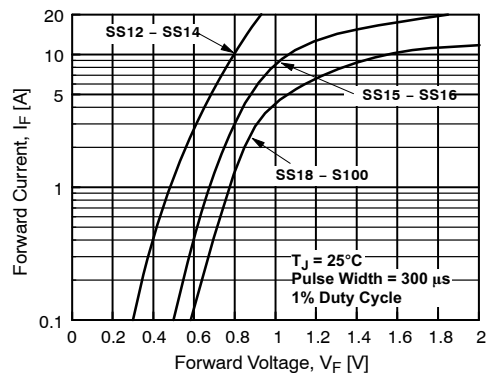


Figure 2. Forward Voltage Characteristics

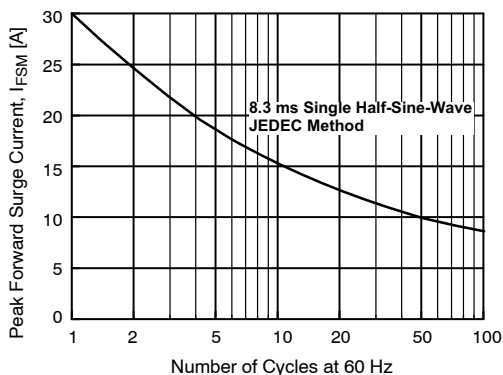


Figure 3. Non-Repetitive Surge Current

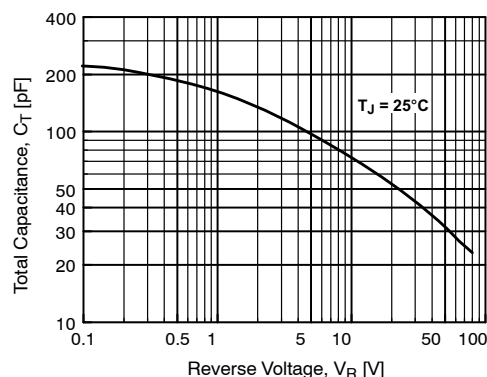


Figure 4. Total Capacitance

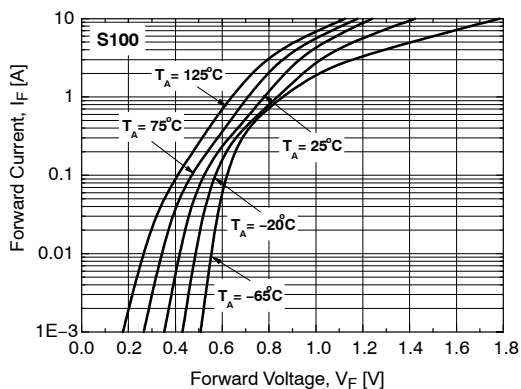
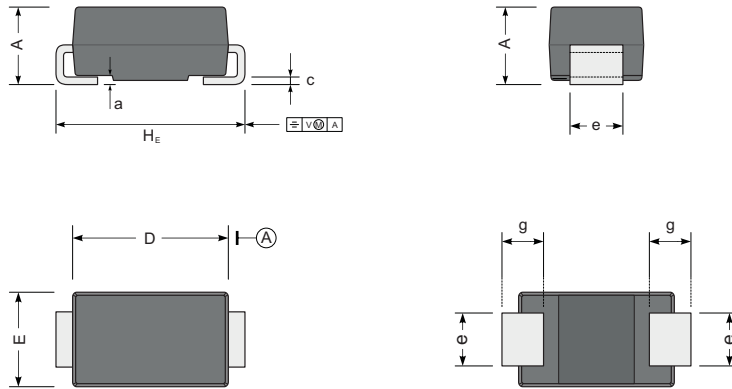


Figure 5. Low-Current Forward Voltage Characteristics

SMA

Unit: mm



UNIT		A	D	E	H _E	c	e	g	a
mm	max	2.2	4.5	2.7	5.2	0.31	1.6	1.5	0.3
	min	1.9	4.0	2.3	4.7	0.15	1.3	0.9	
mil	max	87	181	106	205	12	63	59	12
	min	75	157	91	185	6	51	35	

The recommended mounting pad size

