

Surface Mount Schottky Rectifier

Features

- Low power losses, high efficiency
- Low forward voltage drop, low reverse current
- Compliant with RoHS requirements, lead-free, halogen-free
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Mechanical Data

- Package: SOD-323HE
- Terminals: Tin plated leads, solderable per
- Polarity: Cathode line denotes the cathode end

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

Parameter	Symbol	Unit	SS12HE WS	SS13HE WS	SS14HE WS	SS15HE WS	SS16HE WS	SS18HE WS	SS110HE WS	SS115HE WS	SS120HE WS
Repetitive peak reverse voltage	V_{RRM}	V	20	30	40	50	60	80	100	150	200
Average rectified output current @60Hz sine wave, Resistance load, T_a (FIG.1)	I_O	A	1.0								
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, $T_J=25^{\circ}\text{C}$	I_{FSM}	A	25								
Storage temperature	T_{STG}	$^{\circ}\text{C}$	-55 ~+150								
Junction temperature	T_J	$^{\circ}\text{C}$	-55 ~+150								

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

Parameter	Symbol	Unit	Test Conditions	SS12HE WS	SS13HE WS	SS14HE WS	SS15HE WS	SS16HE WS	SS18HE WS	SS110HE WS	SS115HE WS	SS120HE WS
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =1.0A	0.55			0.70		0.85		0.95	
Maximum DC reverse current at rated DC blocking voltage per diode @ V _{RM} =V _{RRM}	I _{RRM}	mA	T _a =25°C	0.50					0.10			
			T _a =100°C	10					5			

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

Parameter	Symbol	Unit	SS12HE WS	SS13HE WS	SS14HE WS	SS15HE WS	SS16HE WS	SS18HE WS	SS110HE WS	SS115HE WS	SS120HE WS
Thermal Resistance	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	199 ¹⁾								
	$R_{\theta J-L}$		21 ¹⁾								

Note: 1. Per JESD51-3 Recommended Thermal Test Board. Device mounted on FR-4 PCB, board size = 76.2 mm x 114.3 mm



Characteristics (Typical)

FIG1: I_o - T_L Curve

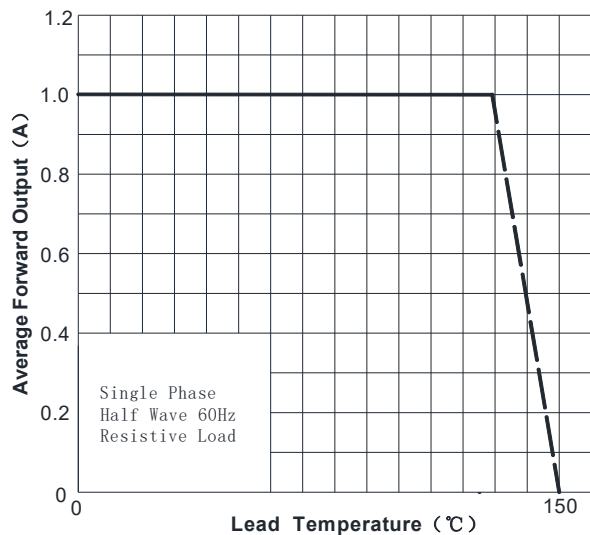


FIG2: Surge Forward Current Capability

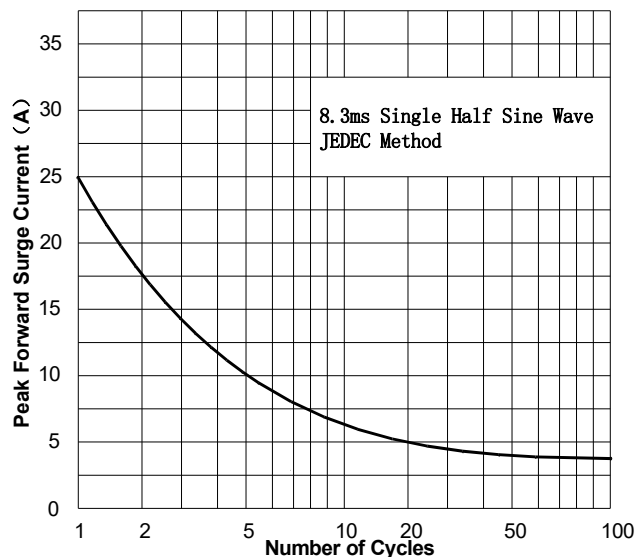


FIG3: Forward Voltage

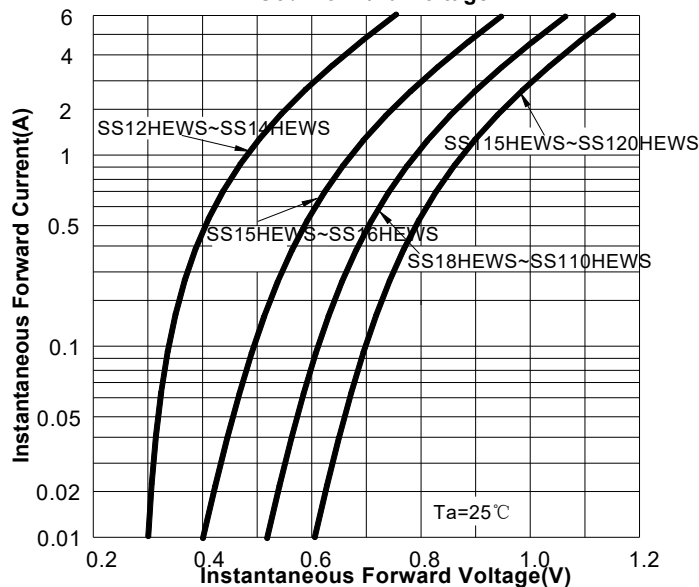
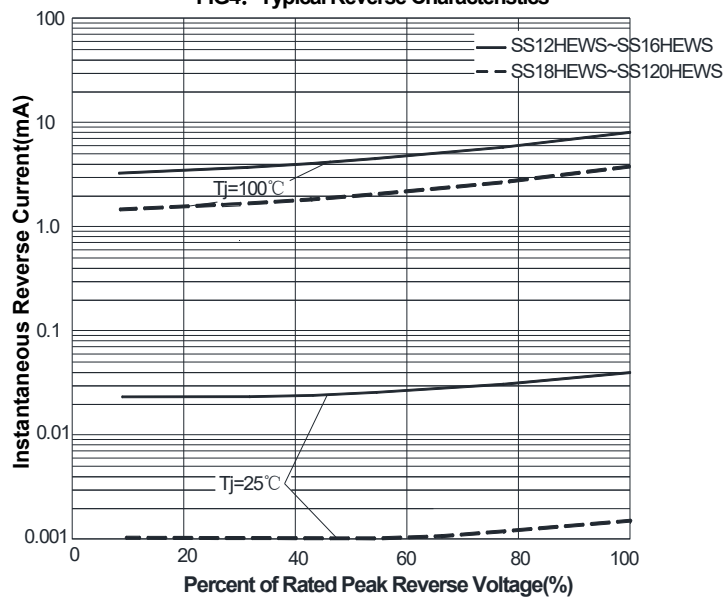


FIG4: Typical Reverse Characteristics





Dimensions (SOD-323HE)

Dim	Inches		Millimeters	
	Min	Max	Min	Max
A	0.083	0.091	2.10	2.30
B	0.094	0.110	2.40	2.80
C	0.050	0.058	1.28	1.48
D	0.020	0.028	0.50	0.70
E	0.025	0.033	0.64	0.84
F1	0.016	0.030	0.41	0.76
F2	0.046	0.062	1.18	1.58
G	0.002	0.010	0.05	0.25
H	0.031	0.041	0.80	1.05

Cathode Band
(for uni-directional
products only)

Soldering footprint

Dimensions in inches
and (millimeters)