

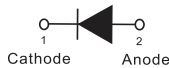
Surface Mount Schottky Rectifier

Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- AEC-Q101 qualified
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

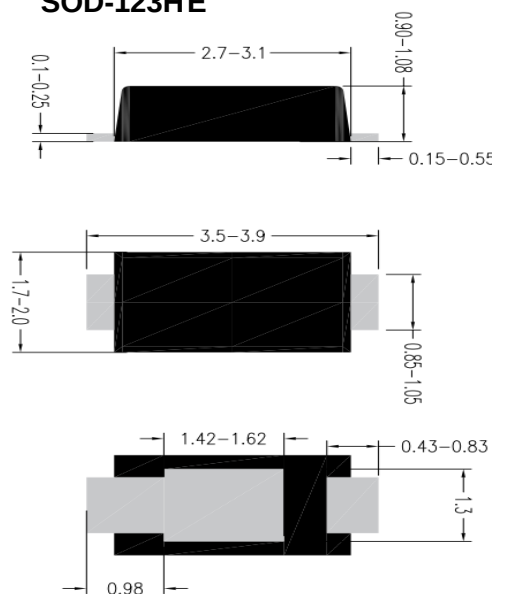
Mechanical Data

- Package: SOD-123HE
- Terminals: Tin plated leads, solderable per
- Polarity: Cathode line denotes the cathode end



SOD-123HE

Unit : inch(mm)



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

Parameter	Symbol	Unit	SS32 HEQ	SS33 HEQ	SS34 HEQ	SS35 HEQ	SS36 HEQ	SS38 HEQ	SS310 HEQ	SS315 HEQ	SS320 HEQ
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, Ta (FIG.1)	I _O	A	3.0								
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, Tj=25℃	I _{FSM}	A	70								
Storage temperature	T _{stg}	℃	-55 ~+150								
Junction temperature	T _J	℃	-55 ~+150						-55 ~+175		
Typical Junction Capacitance measured at 1MHz and Applied on 4.0VD.C	C _j	pF	165								

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

Parameter	Symbol	Unit	Test Conditions	SS32 HEQ	SS33 HEQ	SS34 HEQ	SS35 HEQ	SS36 HEQ	SS38 HEQ	SS310 HEQ	SS315 HEQ	SS320 HEQ
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =3.0A	0.55			0.70		0.85		0.95	
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	I _{RRM}	mA	T _a =25°C	0.5					0.1			
			T _a =100°C	10					5			



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

Parameter	Symbol	Unit	SS32 HEQ	SS33 HEQ	SS34 HEQ	SS35 HEQ	SS36 HEQ	SS38 HEQ	SS310 HEQ	SS315 HEQ	SS320 HEQ
Thermal Resistance	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	70 ⁽¹⁾								
	$R_{\theta J-L}$		25 ⁽¹⁾								

Note:

(1) Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

Characteristics (Typical)

FIG1: I_o - T_L Curve

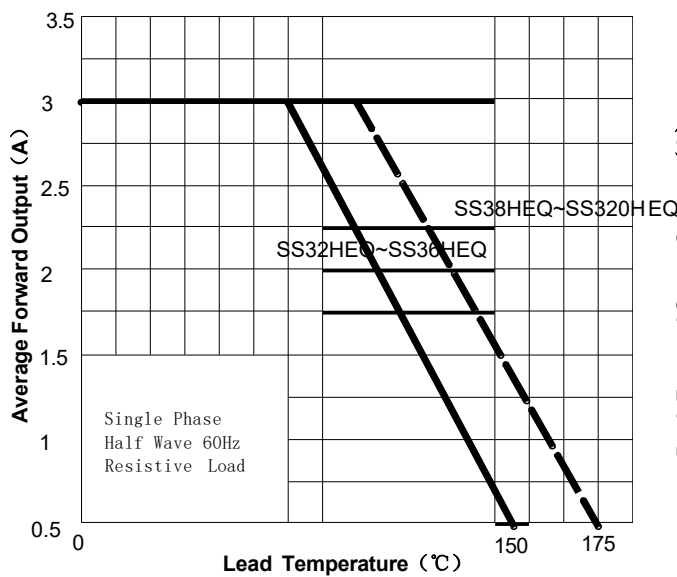


FIG2: Surge Forward Current Capability

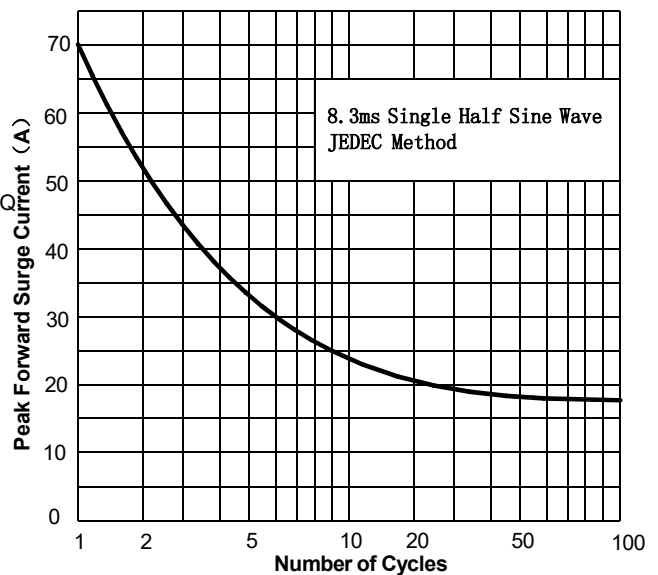


FIG3: Forward Voltage

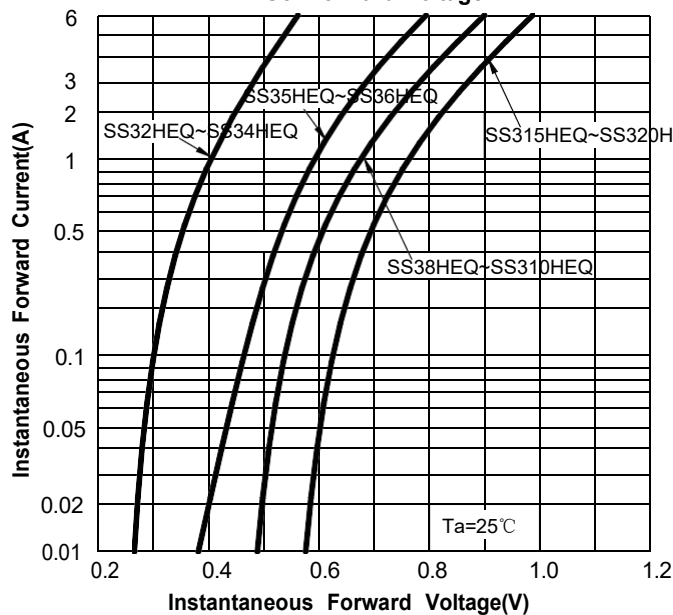


FIG4: Typical Reverse Characteristics

