

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
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

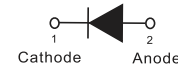
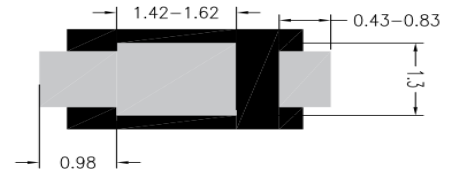
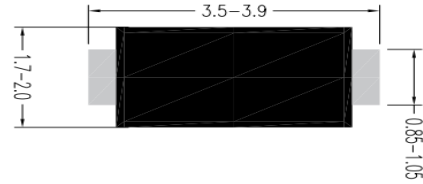
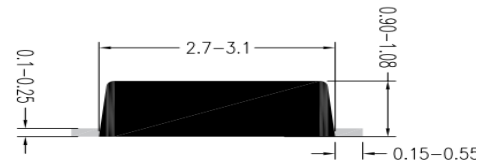
For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Mechanical Date

- **Package:** SOD-123HE
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

SOD-123HE

Unit : inch(mm)



■Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	S32HE	S33HE	S34HE	S35HE	S36HE	S38HE	S310HE	S315HE	S320HE	
Repetitive peak reverse voltage	VRRM	V	20	30	40	50	60	80	100	150	200	
Average rectified output current @60Hz sine wave, Resistance load, Ta (FIG.1)	IO	A	3.0									
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, Tj=25°C	IFSM	A	65									
Storage temperature	Tstg	°C	-55 ~+150									
Junction temperature	Tj	°C	-55 ~+150					-55 ~+175				
Typical Junction Capacitance measured at 1MHz and Applied on 4.0VD.C	Cj	pF	165									

■Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	S32HE	S33HE	S34HE	S35HE	S36HE	S38HE	S310HE	S315HE	S320HE
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=3.0A	0.55		0.70		0.85		0.95		
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	IRRM	mA	Ta=25°C	0.5					0.1			
			Ta=100°C	10					5			

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	S32HE	S33HE	S34HE	S35HE	S36HE	S38HE	S310HE	S315HE	S320HE
Thermal Resistance	R _{θJ-A}	°C/W	70 ¹⁾								
	R _{θJ-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

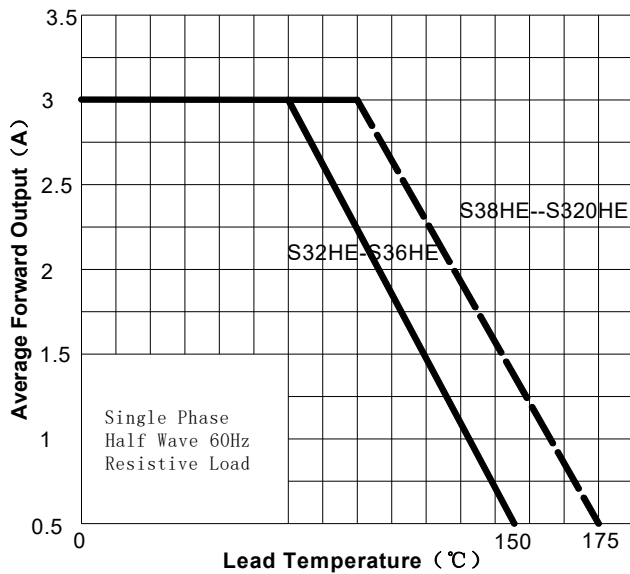


FIG2: Surge Forward Current Capability

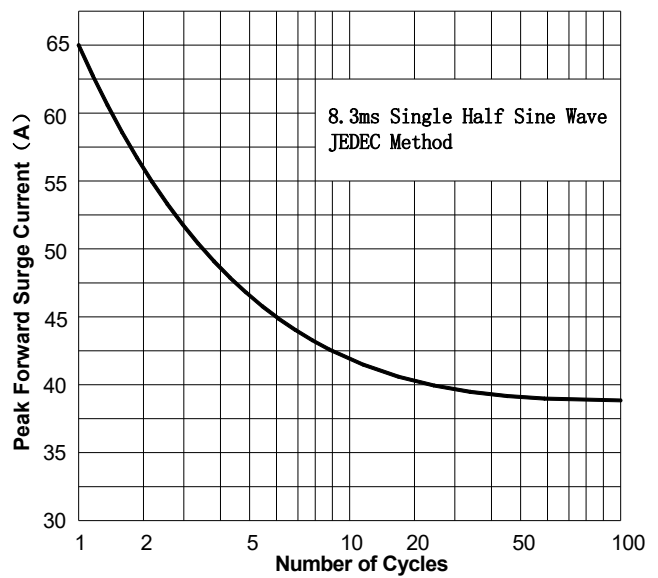


FIG3: Forward Voltage

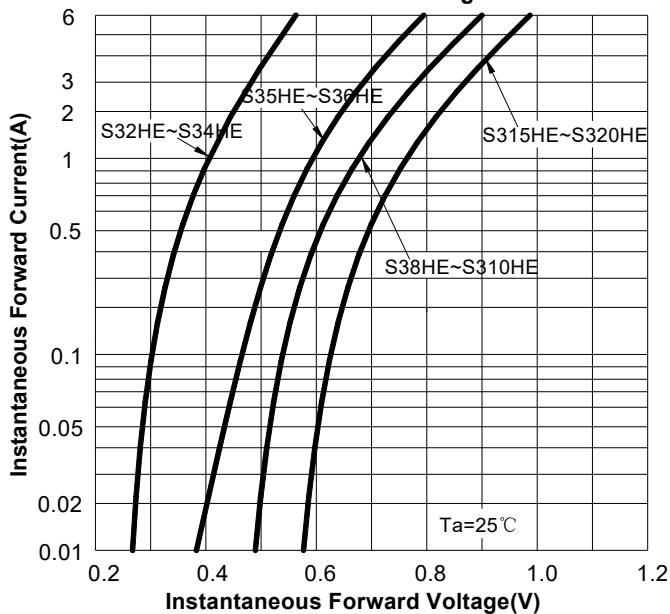


FIG4: Typical Reverse Characteristics

