

## Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Compliant with RoHS standards, halogen-free
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

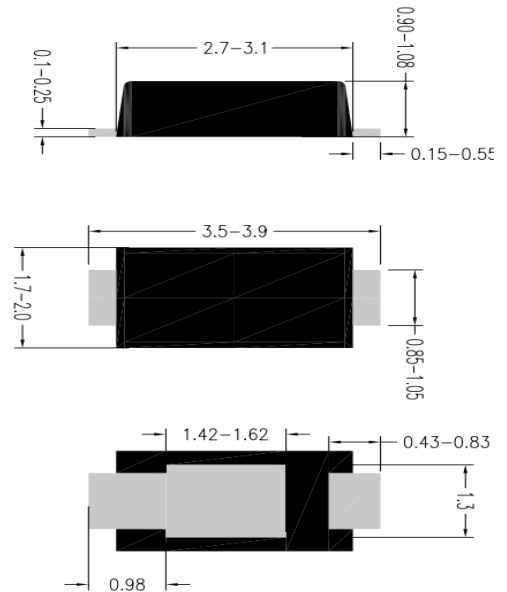
## MECHANICAL DATA

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

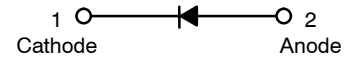
## APPLICATIONS

- DC/DC converters
- Freewheeling
- low voltage high frequency inverters
- polarity protection applications

### SOD-123HE



unit: inch (mm)



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

PARAMETER	SYMBOL	UNIT	SS12HE	SS13HE	SS14HE	SS15HE	SS16HE	SS18HE	SS110HE	SS115HE	SS120HE	
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	1.0									
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, Tj=25 °C	IFSM	A	30									
Storage temperature	Tstg	°C	-55 ~+150									
Junction temperature	Tj	°C	-55 ~+150					-55 ~+175				

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SS12HE	SS13HE	SS14HE	SS15HE	SS16HE	SS18HE	SS110HE	SS115HE	SS120HE
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=1.0A	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	0.50					0.10			
			Ta=100 °C	10					5			



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

PARAMETER	SYMBOL	UNIT	SS12HE	SS13HE	SS14HE	SS15HE	SS16HE	SS18HE	SS110HE	SS115HE	SS120HE
Thermal Resistance	RθJ-A	°C/W	70 <sup>1)</sup>								
	RθJ-L		20 <sup>1)</sup>								

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:Io-TL Curve

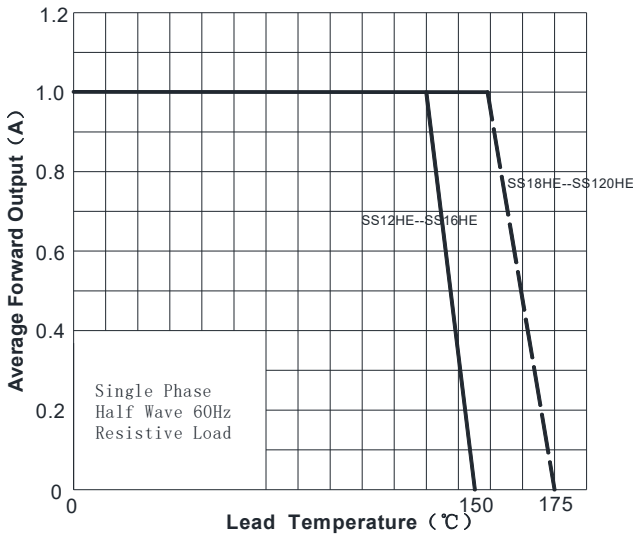


FIG2: Surge Forward Current Capability

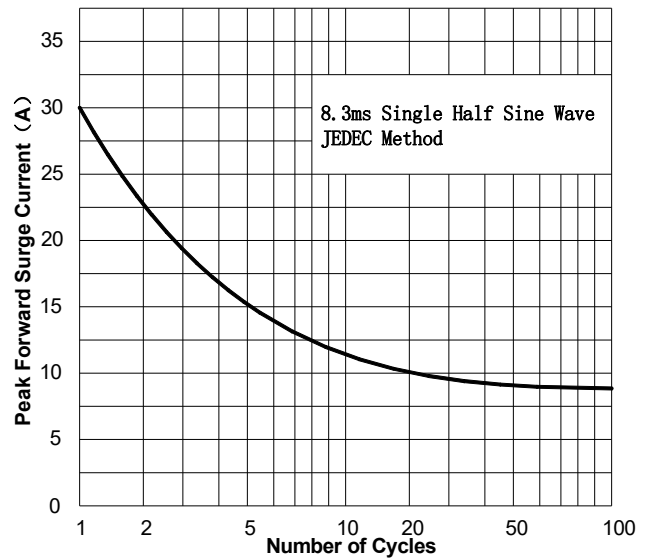


FIG3: Forward Voltage

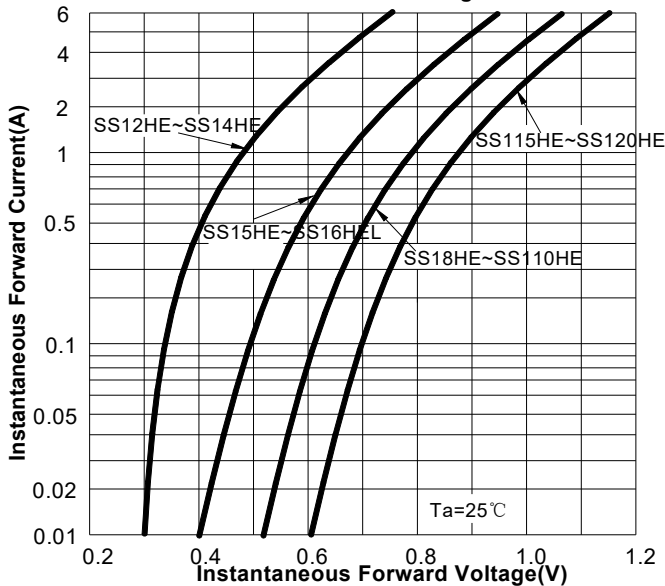
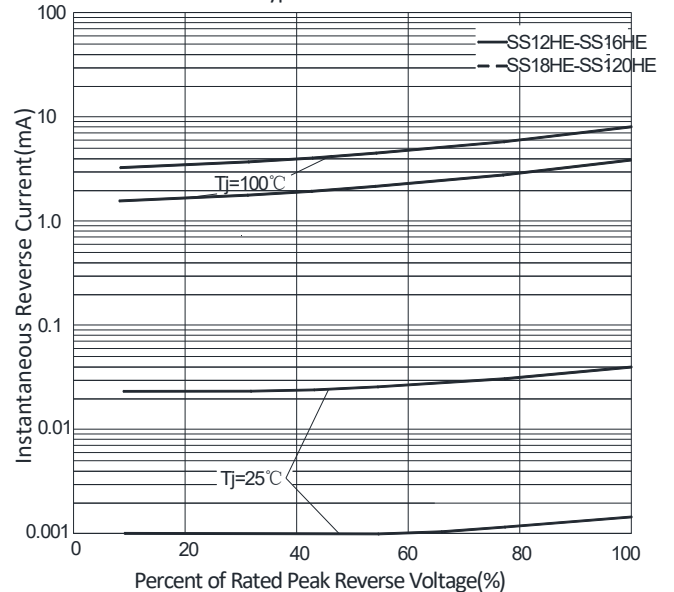


FIG4: Typical Reverse Characteristics



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