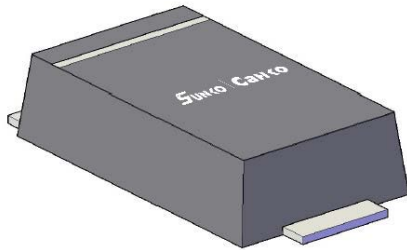


Surface Mount Schottky Rectifier

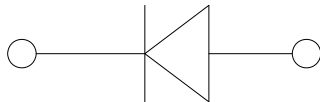


Features

- N+ IMP, Passivation Dep
- 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 Data

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

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

PARAMETER	SYMBOL	UNIT	S22EH	S23EH	S24EH	S25EH	S26EH	S28EH	S210EH	S215EH	S220EH
Device marking code			S22EH	S23EH	S24EH	S25EH	S26EH	S28EH	S210EH	S215EH	S220EH
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, TL (FIG.1)	I _O	A	2.0								
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, T _j =25°C	I _{FSM}	A	40								
Storage temperature	T _{stg}	°C	-55 ~+150								
Junction temperature	T _j	°C	-55 ~+150				-55 ~+175				

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	S22EH	S23EH	S24EH	S25EH	S26EH	S28EH	S210EH	S215EH	S220EH
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =2.0A	0.5			0.7		0.85		0.9	
Maximum DC reverse current at rated DC blocking voltage per diode @ V _{RM} =V _{RRM}	I _{RRM}	mA	T _j =25°C	0.50					0.10			
			T _j =100°C	10					5			

Note1:Pulse test:300uS pulse width,1% duty cycle

Note2:Pulse test:pulse width 40mS

S22EH THRU S220EH

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

PARAMETER	SYMBOL	UNIT	S22EH	S23EH	S24EH	S25EH	S26EH	S28EH	S210EH	S215EH	S220EH
Thermal Resistance	R _{θJ-A}	°C/W	80								
	R _{θJ-L}		20								

■ Characteristics (Typical)

FIG1: I_o-T_L Curve

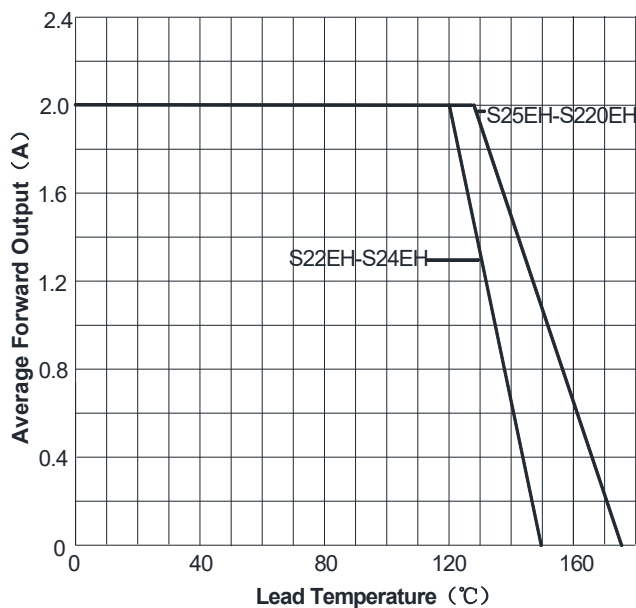


FIG2: Surge Forward Current Capability

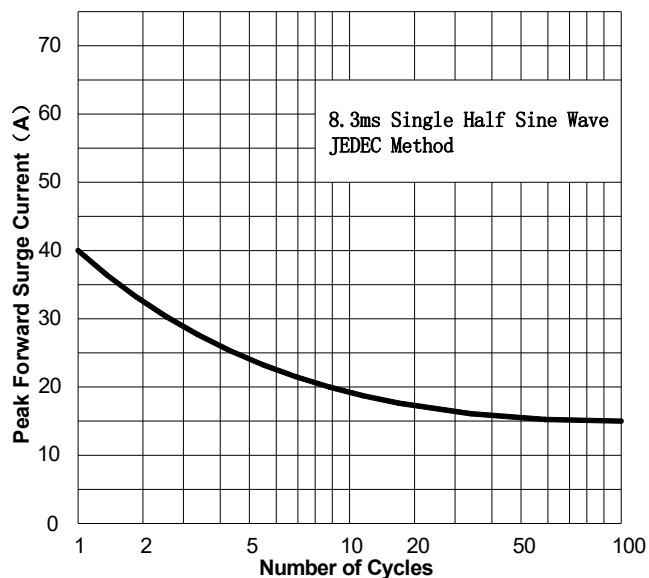


FIG3: Forward Voltage

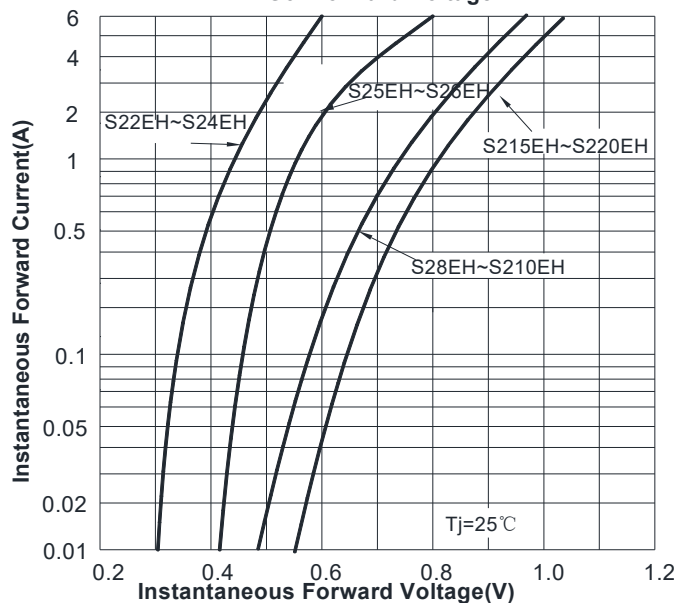
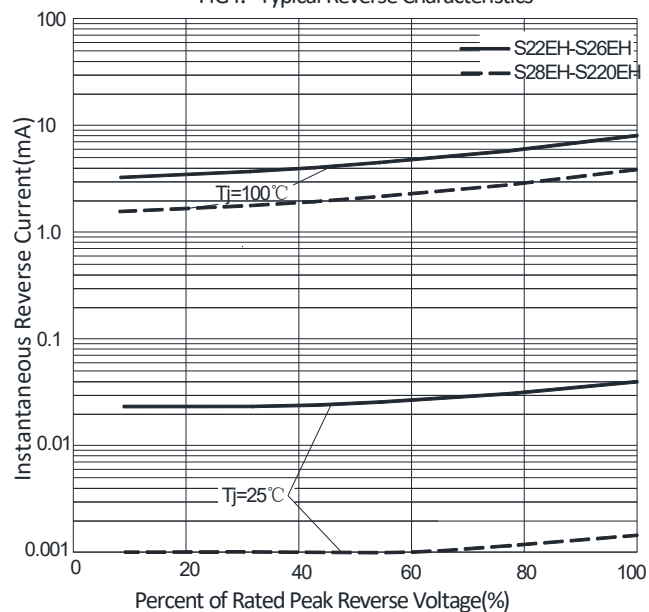
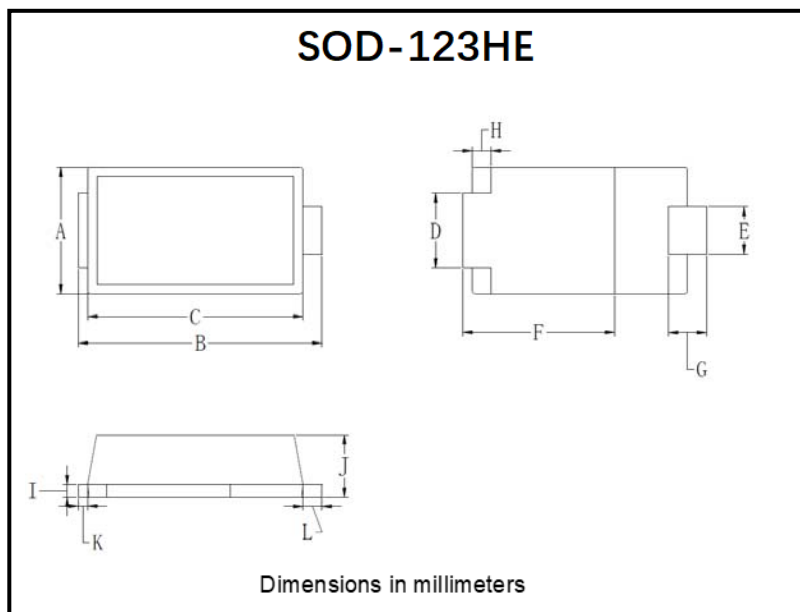


FIG4: Typical Reverse Characteristics

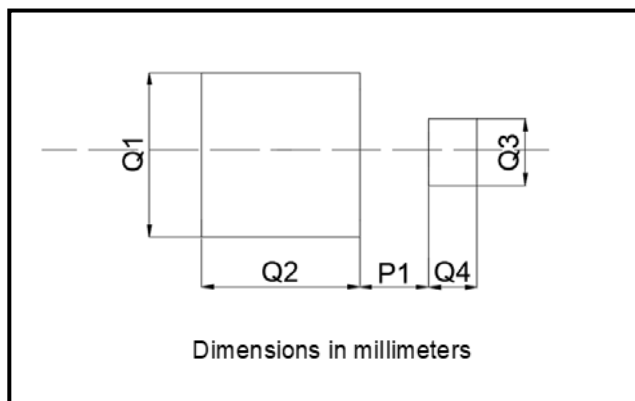


■ Outline Dimensions



SOD-123HE		
Dim	Min	Max
A	1.88	2.18
B	3.70	4.00
C	3.19	3.61
D	1.05	1.35
E	0.61	0.91
F	2.20	2.90
G	0.40	0.80
H	0.30 TYP	
I	0.10	0.30
J	0.85	1.15
K	0.00	0.30
L	0.15	0.45

■ Suggested pad layout



SOD-123HE	
Dim	Millimeters
P1	0.64
Q1	2.54
Q2	2.67
Q3	1.27
Q4	0.76

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