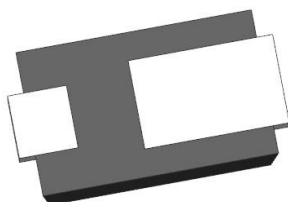


SOD-323HE Plastic-Encapsulate Diodes

Surface Mount Schottky Rectifier

SOD-323HE



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 Data

- ❖ **Package:** SOD-323HE
Molding compound meets
UL 94 V-0 flammability rating,
RoHS-compliant, halogen-free
- ❖ **Terminals:** Tin plated leads, solderable
per J-STD-002
- ❖ **Polarity:** Cathode line denotes the cathode end

Maximum Ratings

(Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	S12HE	S13HE	S14HE	S15HE	S16HE	S18HE	S110HE	S115HE	S120HE
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	25								
Storage temperature	Tstg	°C	-55 ~+150								
Junction temperature	Tj	°C	-55 ~+150								

Electrical Characteristics

(Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	S12HE	S13HE	S14HE	S15HE	S16HE	S18HE	S110HE	S115HE	S120HE
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	S12HE	S13HE	S14HE	S15HE	S16HE	S18HE	S110HE	S115HE	S120HE
Thermal Resistance	RθJ-A	°C/W	199 ¹⁾								
	RθJ-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: Io-TL Curve

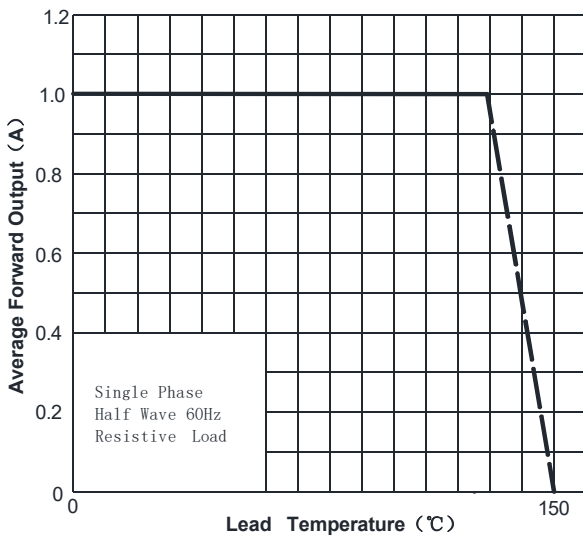


FIG2: Surge Forward Current Capability

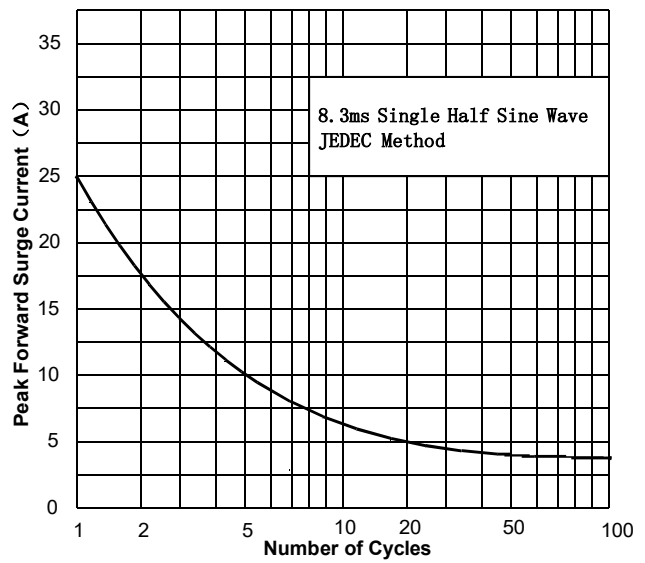


FIG3: Forward Voltage

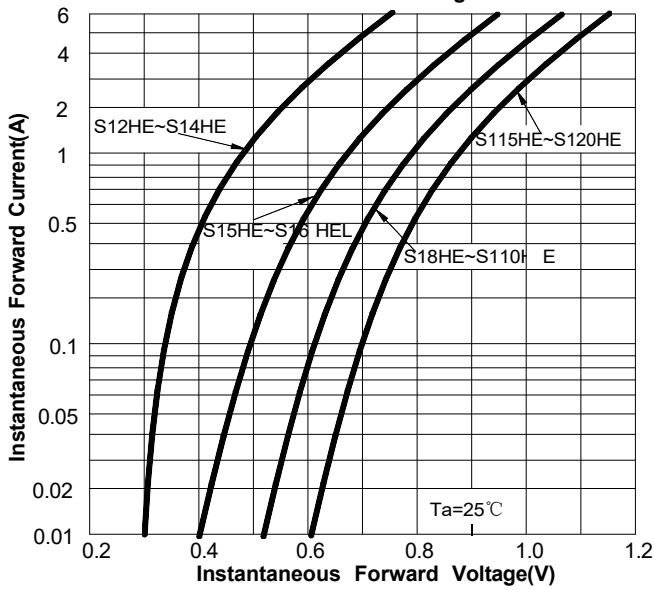
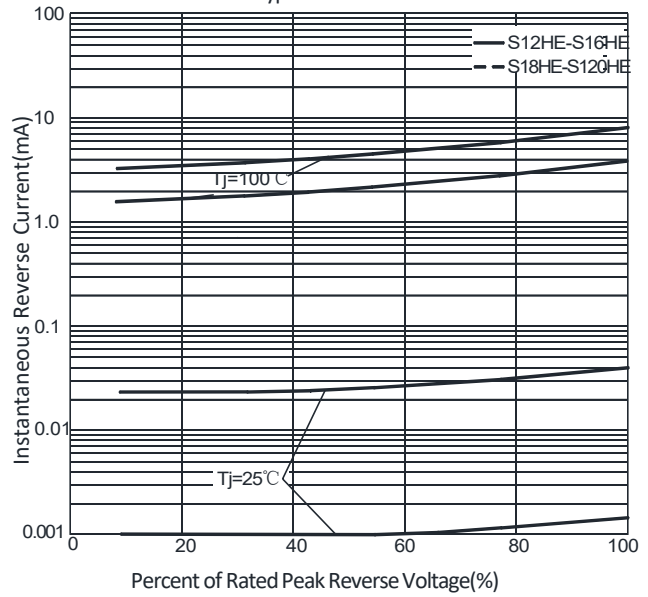
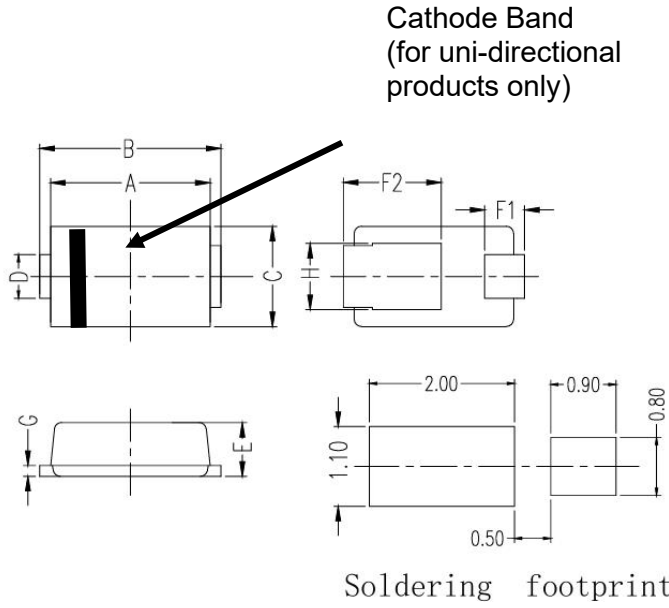


FIG4: Typical Reverse Characteristics



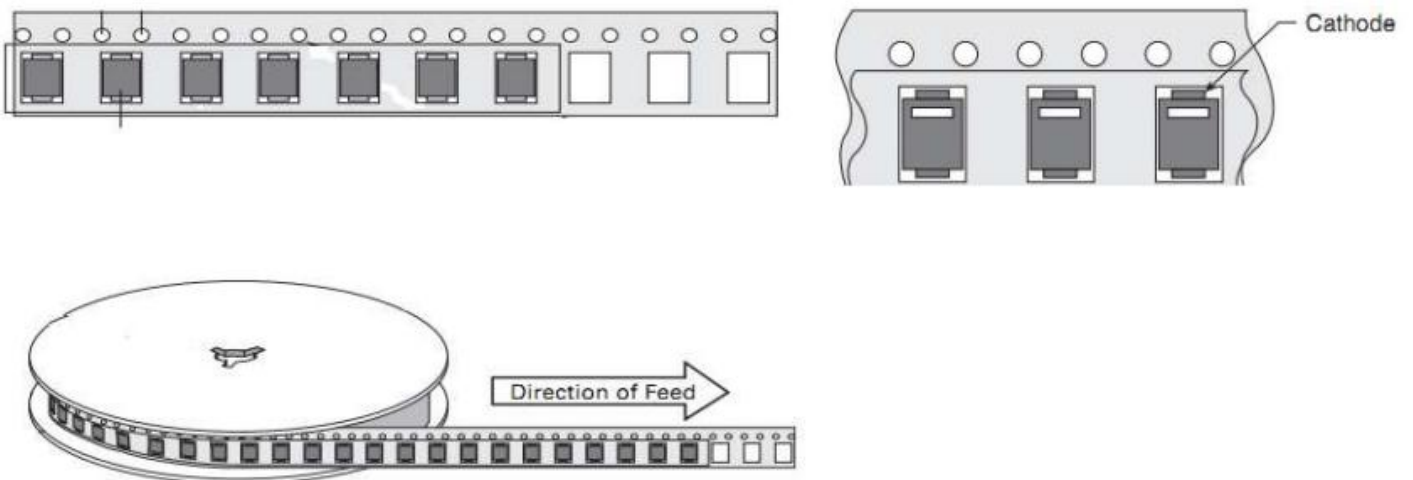
Dimensions (SOD-323HE)

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

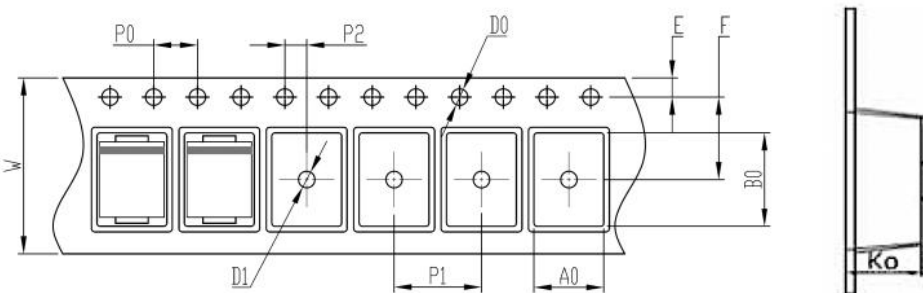
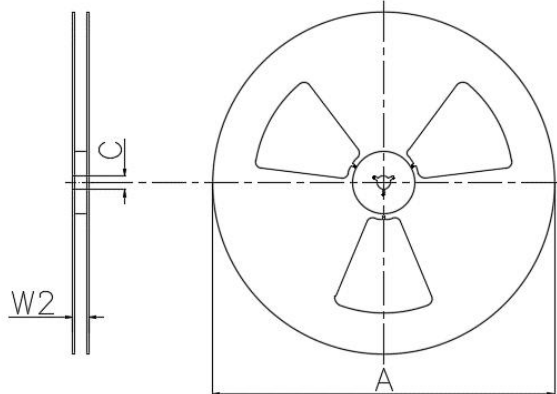


Dimensions in inches and (millimeters)

Taping Orientation



Packaging

Tape	Symbol	Dimension (mm)	
	W	8±0.15	
	E	1.75±0.15	
	F	3.5±0.15	
	D0	1.55±0.15	
	D1	1.1±0.15	
	P0	4.0±0.15	
	P1	4±0.15	
	P2	2.0±0.15	
	A0	1.63±0.15	
	B0	2.85±0.15	
	K0	0.90±0.15	
	7" Reel	Symbol	Dimension (mm)
		A	178±2
C		13±0.5	
W2		11.5±2	
Quantity: 3000PCS			