

SS14HEWS-HF Thru. SS120HEWS-HF

Reverse Voltage: 40 to 200 V

Forward Current: 1 A

RoHS Device

Halogen Free



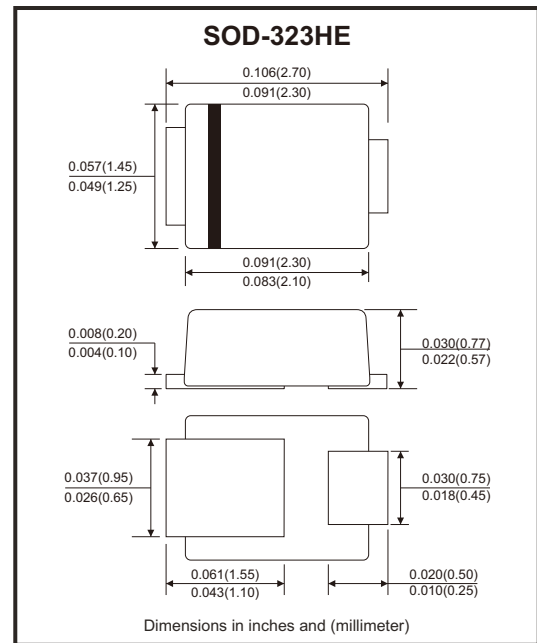
Features

- Metal silicon junction, majority carrier conduction.
- For surface mounted applications.
- Low power loss, high efficiency.
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

Mechanical data

- Case: SOD-323HE, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.

Circuit Diagram



Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20%

Parameter	Symbols	SS14HEWS -HF	SS16HEWS -HF	SS110HEWS -HF	SS115HEWS -HF	SS120HEWS -HF	Units
Maximum repetitive peak reverse voltage	V _{RRM}	40	60	100	150	200	V
Maximum RMS voltage	V _{RMS}	28	42	70	105	140	V
Maximum DC blocking voltage	V _{DC}	40	60	100	150	200	V
Maximum average forward rectified current	I _O	1					A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	25					A
Max instantaneous forward voltage at 1A	V _F	0.55	0.70	0.85	0.95		V
Maximum DC reverse current T _A = 25°C at rated DC reverse voltage T _A = 100°C	I _R	0.5 20	0.3 15				mA
Typical junction capacitance (Note 1)	C _J	160	40				pF
Typical thermal resistance (Note 2)	R _{θJA}	150					°C/W
Operating junction temperature range	T _J	-55 to +125					°C
Storage temperature range	T _{STG}	-55 to +150					°C

Notes: 1. Measured at 1 MHz and applied reverse voltage of 4V D.C.

2. P.C.B. mounted with 8 x 8 cm copper pad areas.

Typical Rating and Characteristic Curves (SS1xxHEWS-HF Series)

Fig.1 - Forward Current Derating Curve

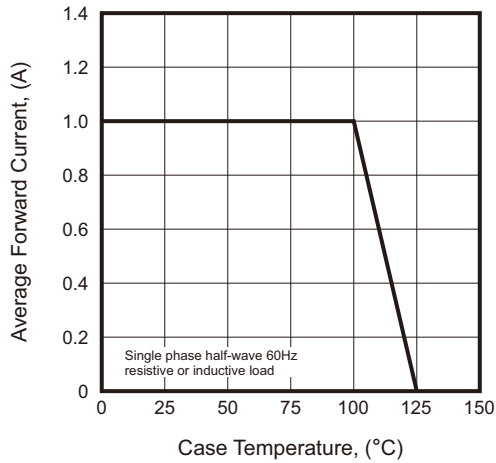


Fig.2 - Typical Reverse Characteristics

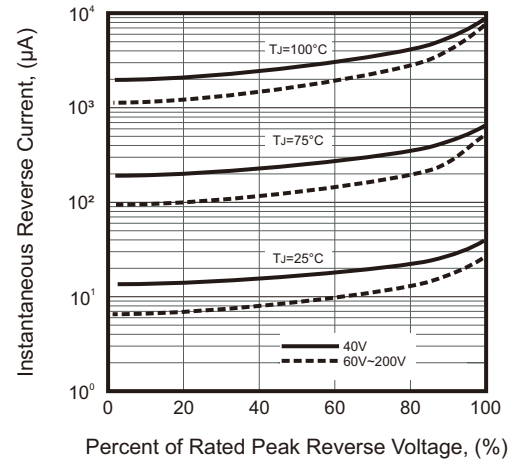


Fig.3 - Typical Forward Characteristic

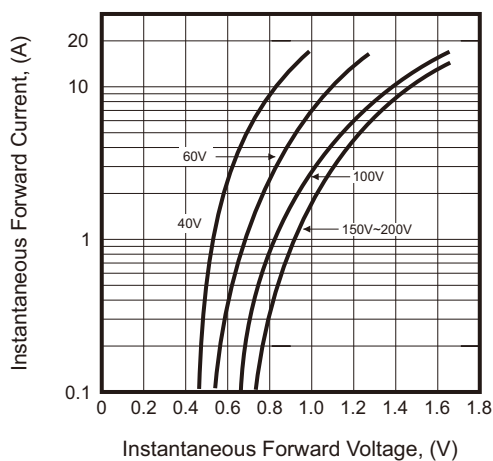


Fig.4 - Typical Junction Capacitance

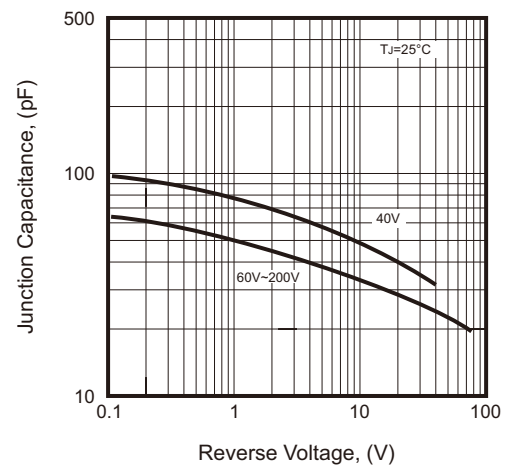


Fig.5 - Maximum Non-Repetitive Peak Forward Surge Current

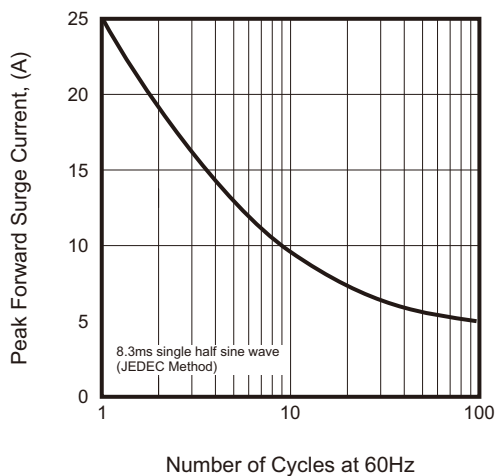
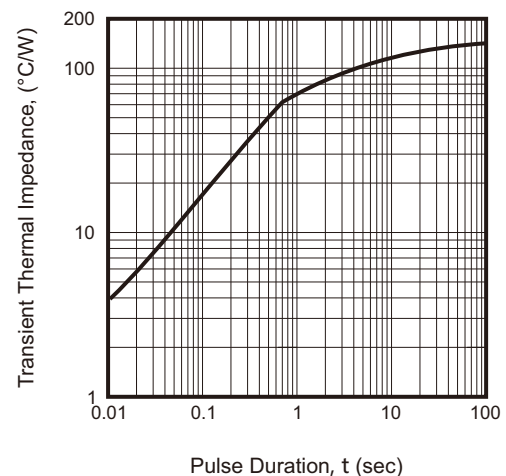
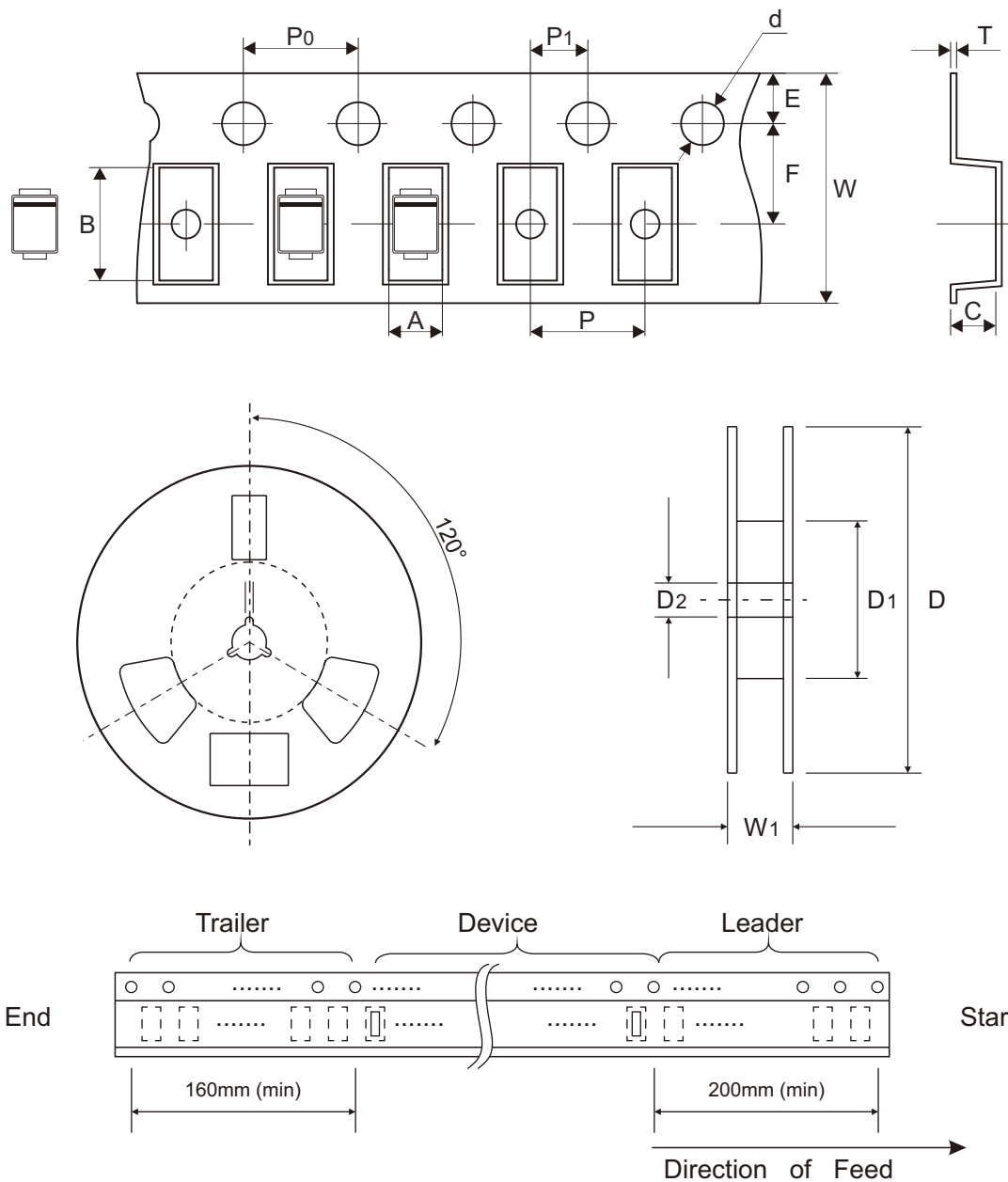


Fig.6 - Typical Transient Thermal Impedance



Reel Taping Specification



	SYMBOL	A	B	C	d	D	D1	D2
SOD-323HE	(mm)	1.60 ± 0.05	2.70 ± 0.05	0.87 ± 0.05	1.55 ± 0.05	180.00 ± 1.00	60.00 ± 1.50	13.00 ± 0.20
	(inch)	0.063 ± 0.002	0.106 ± 0.002	0.034 ± 0.002	0.061 ± 0.002	7.087 ± 0.039	2.362 ± 0.059	0.512 ± 0.008

	SYMBOL	E	F	P	P0	P1	T	W	W1
SOD-323HE	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.20 ± 0.02	8.00 + 0.30 - 0.10	10.70 + 2.00 - 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.001	0.315 + 0.012 - 0.004	0.421 + 0.079 - 0.039

Marking Code

Part Number	Marking Code
SS14HEWS-HF	K4
SS16HEWS-HF	K6
SS110HEWS-HF	K10
SS115HEWS-HF	K15
SS120HEWS-HF	K20

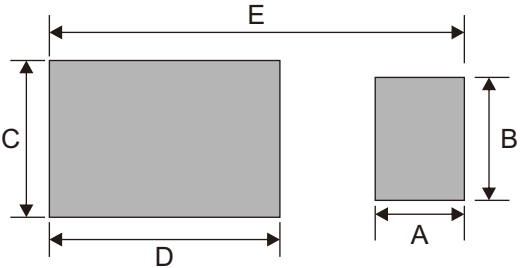


█ = Cathode band

xx/xxx = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	SOD-323HE	
	(mm)	(inch)
A	0.58	0.023
B	0.80	0.031
C	1.02	0.040
D	1.50	0.059
E	2.70	0.106



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-323HE	3,000	7