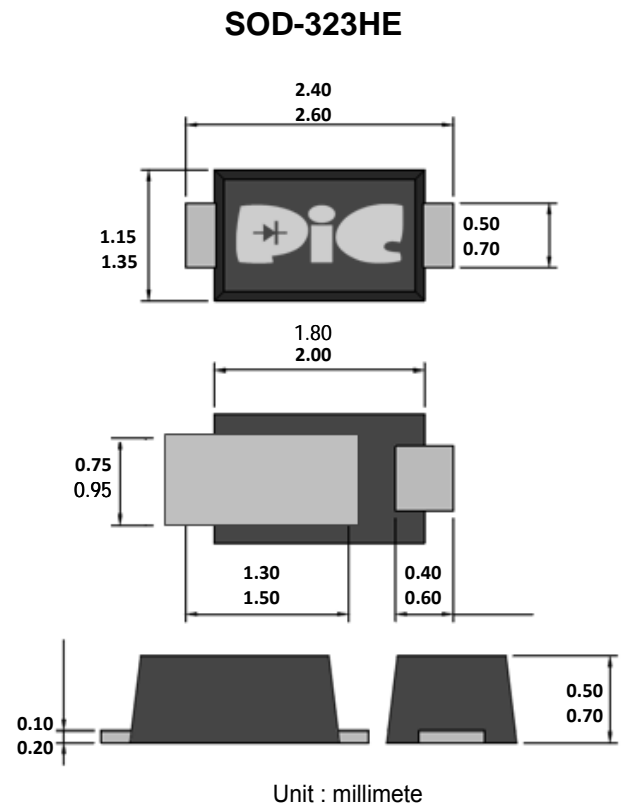


Features

- Standard schottky Rectifier
- Low forward voltage drop
- Low profile - typical body height 0.60 mm
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds
- RoHS compliant
- Halogen-free according to IEC 61249-2-21 definition

Mechanical Data

- Case : SOD-323HE
- Epoxy : UL 94V-O rate flame retardant
- Polarity : Indicated by cathode band
- Mounting position : Any



Maximum Ratings@ $T_A = 25^\circ\text{C}$

Parameter	Symbol	Value	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	V
Maximum Average Forward Rectified Current	I_F	1	A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	25	A
Typical Thermal Resistance from Junction to Ambient ⁽¹⁾	$R_{\theta JA}$	220	$^\circ\text{C/W}$
Typical Thermal Resistance from Junction to Lead ⁽¹⁾	$R_{\theta JL}$	50	$^\circ\text{C/W}$
Junction Temperature	T_J	-40 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-40 to +150	$^\circ\text{C}$

Note :

1. Mounted on 15mmx50mm pad layout.

Electrical Characteristics@ $T_A = 25^\circ\text{C}$

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage	$I_F = 0.7\text{A}$	V_F	-	-	0.52	V
Reverse Leakage Current	$V_R = 40\text{V}, T_J = 25^\circ\text{C}$	I_R	-	-	0.1	mA
	$V_R = 40\text{V}, T_J = 125^\circ\text{C}$		-	-	20	

Rating and Characteristics Curves

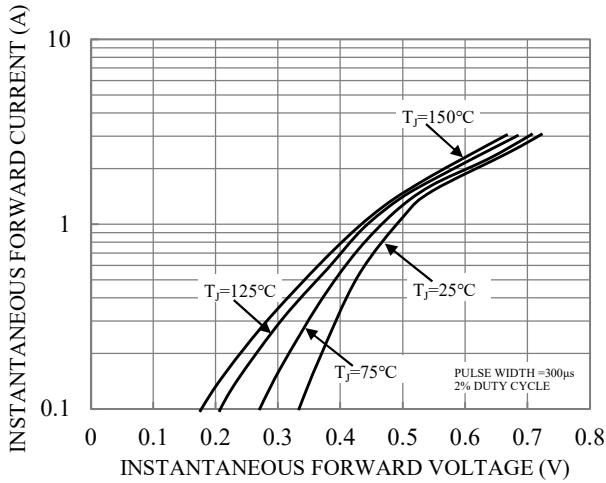


Fig. 1-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

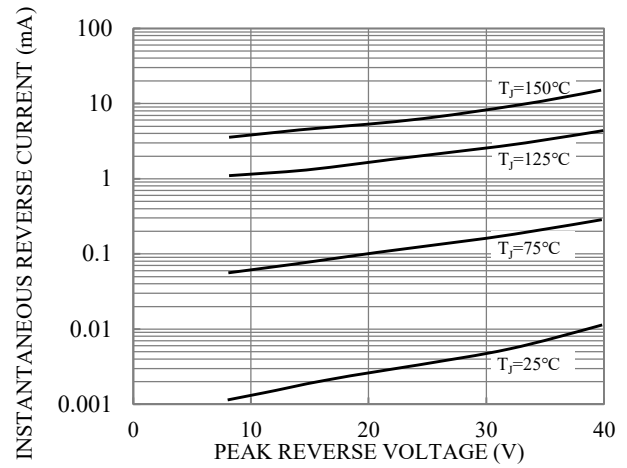


Fig. 2-TYPICAL REVERSE CHARACTERISTICS

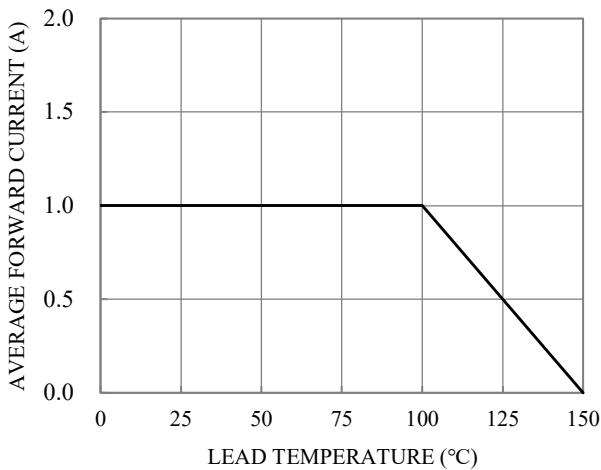
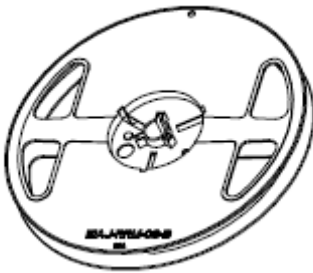
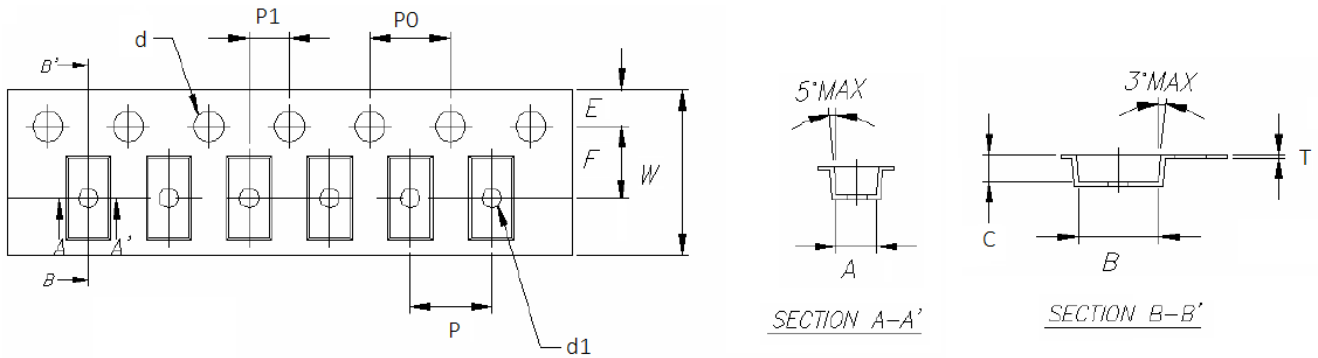


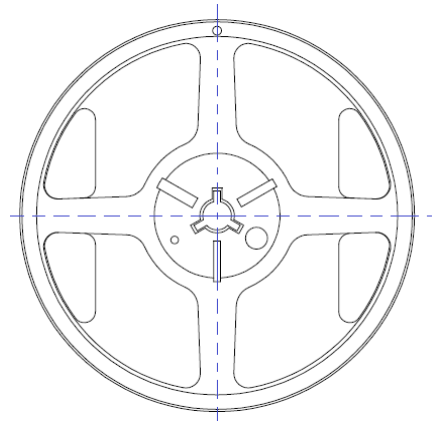
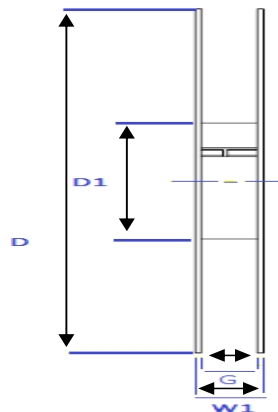
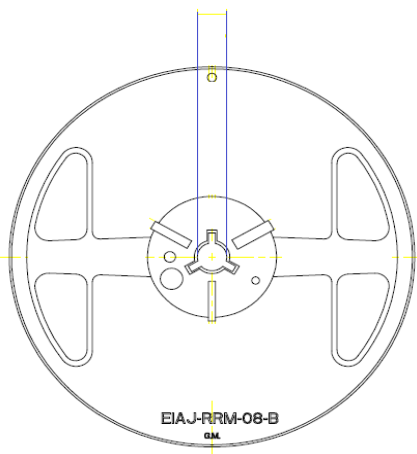
Fig. 3-FORWARD CURRENT DERATING CURVE

Packaging Specifications

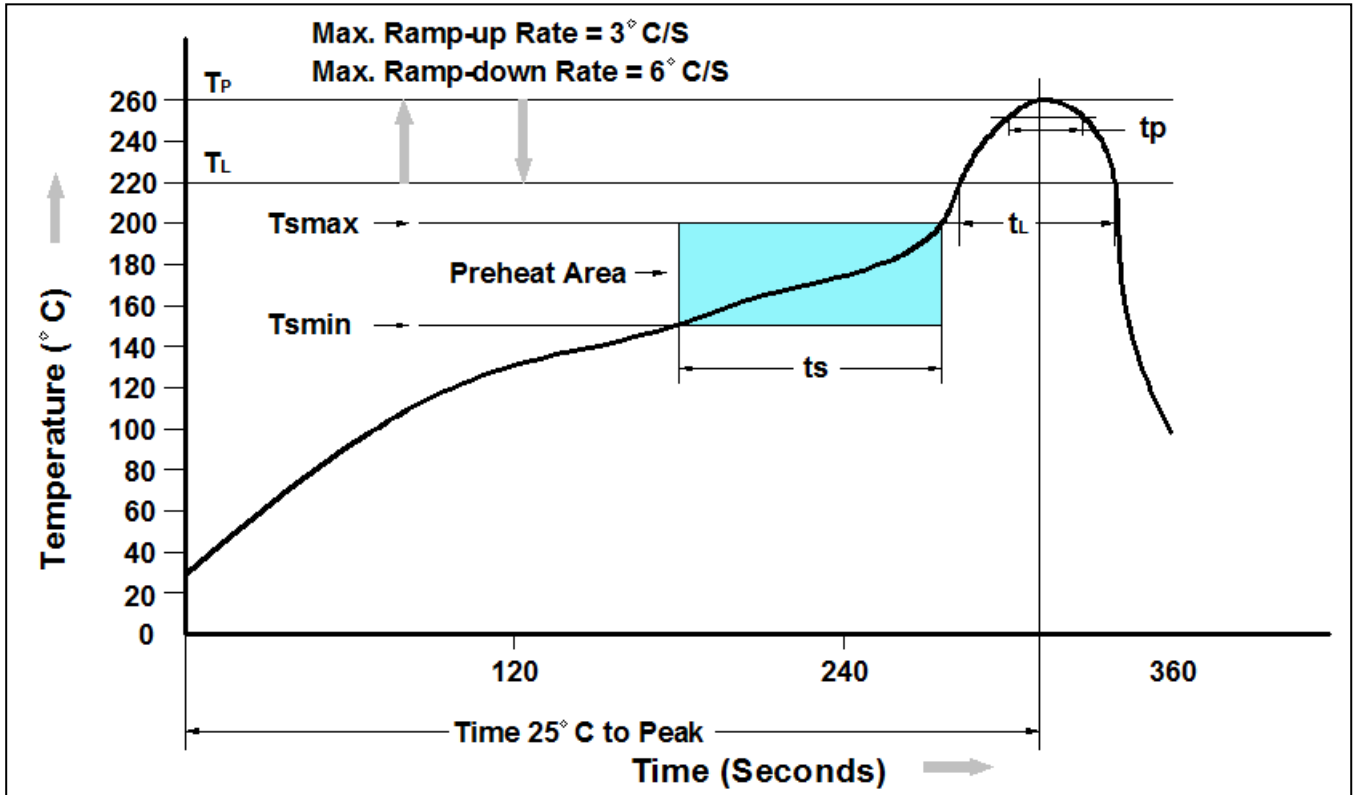
Package	W (mm)	A (mm)	B (mm)	C (mm)	d1 (mm)	d (mm)	E (mm)	F (mm)	P (mm)	P0 (mm)	P1 (mm)	T (mm)
SOD-123FL	8±0.2	2.00±0.1	3.85±0.1	1.1±0.1	1.0	1.50±0.1	1.75±0.1	3.5±0.05	4±0.1	4±0.05	2±0.05	0.23±0.05
SOD-123HE	8±0.3	2.00±0.1	4.00±0.1	1.45±0.1	1.0	1.55±0.1	1.75±0.1	3.5±0.05	4±0.1	4±0.10	2±0.05	0.23±0.10
SOD-323FL	8±0.2	1.37±0.1	2.75±0.1	0.85±0.1	1.00	1.60±0.1	1.75±0.1	3.50±0.05	4±0.1	4±0.10	-	0.20±0.10
SOD-323HE	8±0.3	1.60±0.1	2.80±0.1	0.95±0.1	1.0	1.50±0.1	1.75±0.1	3.5±0.05	4±0.1	4±0.10	2±0.05	0.23±0.10
SMAF	12±0.3	2.9±0.1	5.5±0.1	2.1±0.1	1.5	1.55±0.1	1.75±0.1	5.5±0.05	4±0.1	4±0.10	2±0.05	0.23±0.10
SMA-S	12±0.2	2.65±0.1	5.25±0.1	1.35±0.1	1.0	1.55±0.1	1.75±0.1	5.5±0.05	4±0.1	4±0.05	2±0.05	0.23±0.10
SMA-HE	12±0.2	2.65±0.1	5.25±0.1	1.35±0.1	1.0	1.55±0.1	1.75±0.1	5.5±0.05	4±0.1	4±0.05	2±0.05	0.23±0.10



Package	D (max.) (mm)	D1 (min.) (mm)	D2 (mm)	G (min.) (mm)	W1 (min.) (mm)
SOD-123FL	178	50.0	13.0±0.2	8.4	11.4
SOD-123HE	178	50.0	13.0±0.2	8.4	11.4
SOD-323FL	178	50.2	13.0±0.2	8.0	11.5
SOD-323HE	178	50.0	13.0±0.2	8.4	11.4
SMAF	178	50.0	13.0±0.2	12.4	18.0
	330	50.0	13.0±0.2	12.4	18.0
SMA-S	178	50.0	13.0±0.2	12.4	18.0
SMA-HE	178	50.0	13.0±0.2	12.4	18.0



Recommend IR Reflow Soldering Thermal Profile



Profile Feature	Pb-Free Assembly Profile
Temperature Min. (T Amin)	150°C
Temperature Max. (Tsmax)	200°C
Time (ts) from (T Amin to Tsmax)	60-120 seconds
Average Ramp-up Rate (tL to tP)	3°C/second max.
Liquidous Temperature (TL)	217°C
Time (tL) Maintained Above (TL)	60 – 150 seconds
Peak Temperature	260°C +0°C / -5°C
Time (tp) within 5°C of actual Peak Temperature	30 seconds
Ramp-down Rate (TP to TL)	6°C/second max
Time 25°C to Peak Temperature	8 minutes max.

Ordering Information

Part Number	Description	Quantity
SS1040HDW	SOD-323HE Reel	3,000 pcs

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