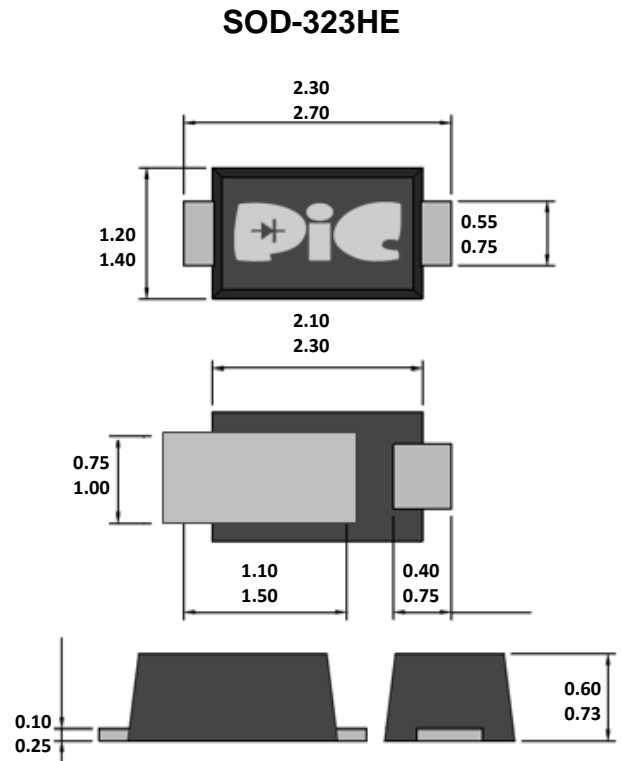


### Features

- Standard schottky Rectifier
- Low forward voltage drop
- Low profile - typical body height 0.65 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
- Case material:molding compound meets  
UL 94V-0 flammability rating
- Polarity: color band denotes cathode end



Unit : millimete

### Maximum Ratings (TA=25°C unless otherwise noted)

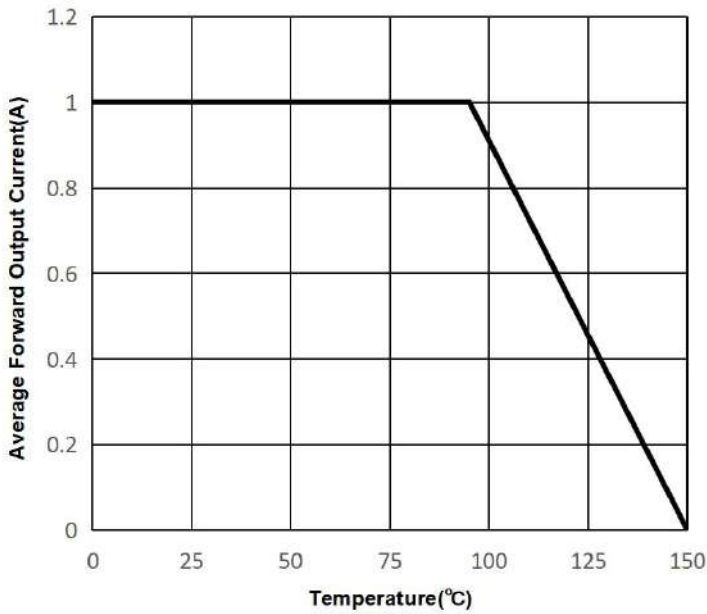
Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
Maximum RMS Voltage	$V_{RMS}$	28	
Maximum DC Blocking Voltage	$V_{DC}$	40	
Average Forward Rectified Current	$I_{F(AV)}$	1	A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	$I_{FSM}$	25	A
Operating Junction Temperature Range	$T_J$	-55 to +150	°C
Storage Temperature Range	$T_{STG}$	-55 to +150	°C

### Electrical Characteristic (TA=25°C unless otherwise noted)

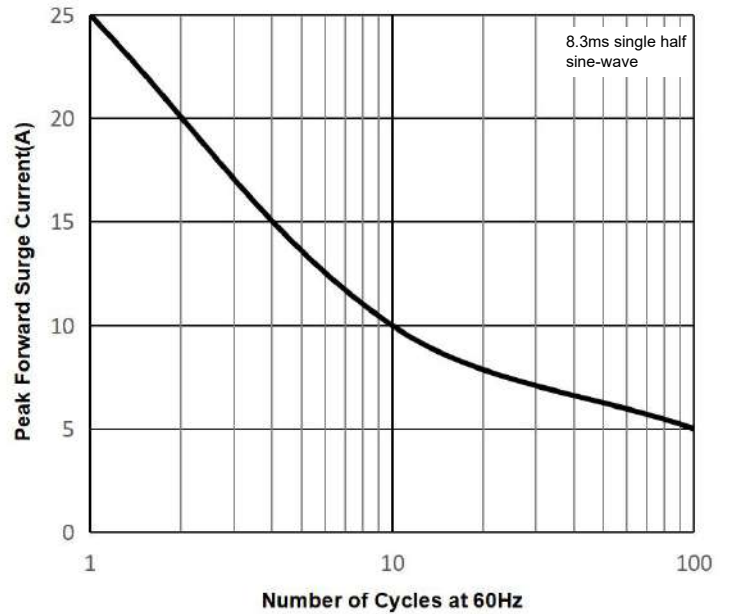
Parameter	Test Conditions	Symbol	Value	Unit
Forward Voltage@ $I_F=0.5A$	$T_A=25^\circ C$	$V_F$	0.46	V
	$T_A=125^\circ C$		0.4	
Forward Voltage@ $I_F=1A$	$T_A=25^\circ C$	$V_F$	0.5	
	$T_A=125^\circ C$		0.46	
Reverse Current @ $V_{RRM}$	$T_A=25^\circ C$	$I_R$	20	μA
	$T_A=125^\circ C$		15	mA
Typical Thermal Resistance		$R_{\theta JA}$	103	°C/W

### Rating and Characteristics Curves

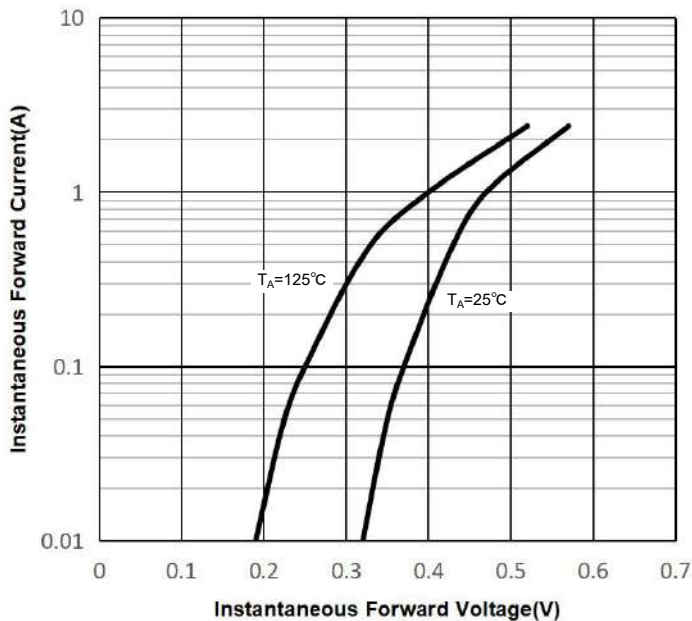
**FIG.1: Forward Output Current Derating Curve**



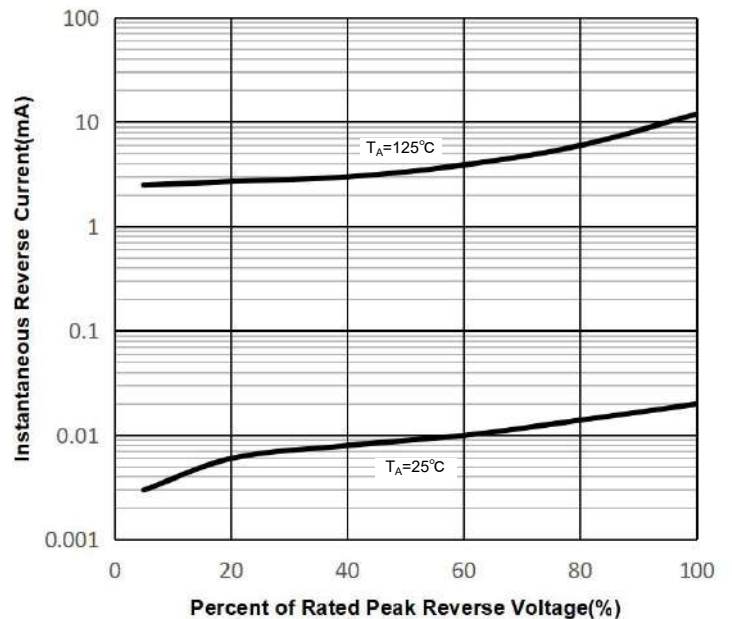
**FIG.2: Maximum Non-Repetitive Peak Forward Surge Current**



**FIG.3: Typical Forward Characteristics**

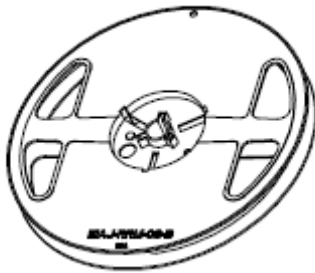
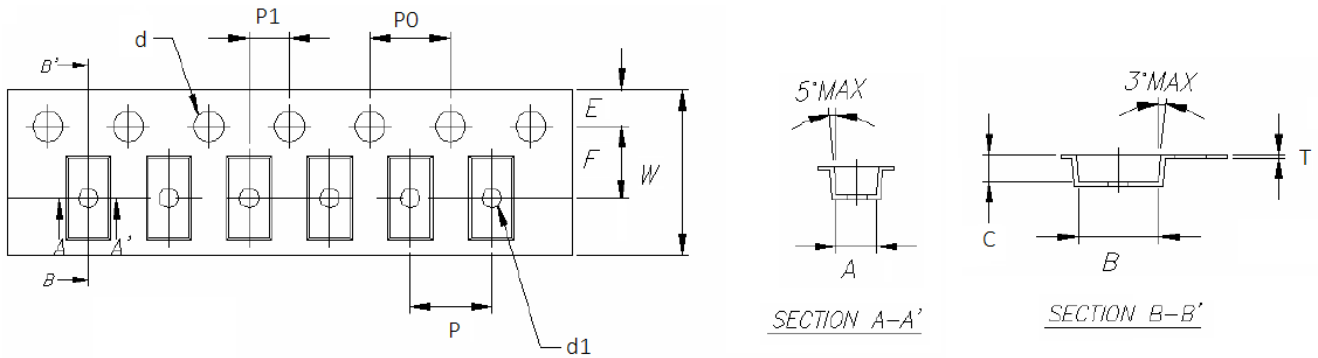


**FIG.4: Typical Reverse Characteristics**

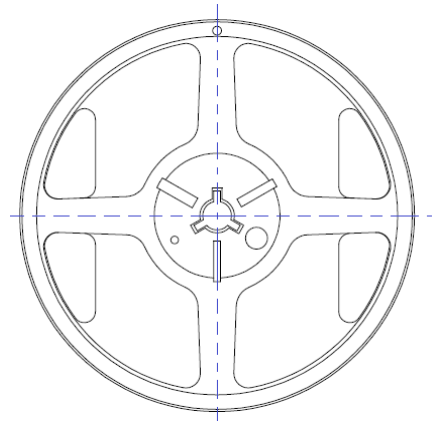
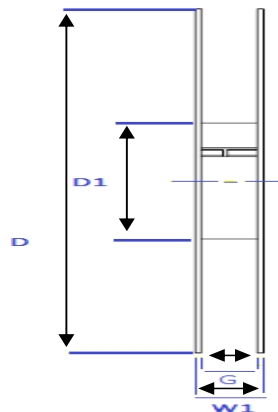
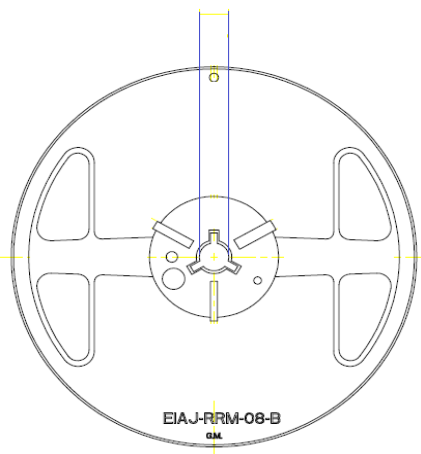


### Packaging Specifications

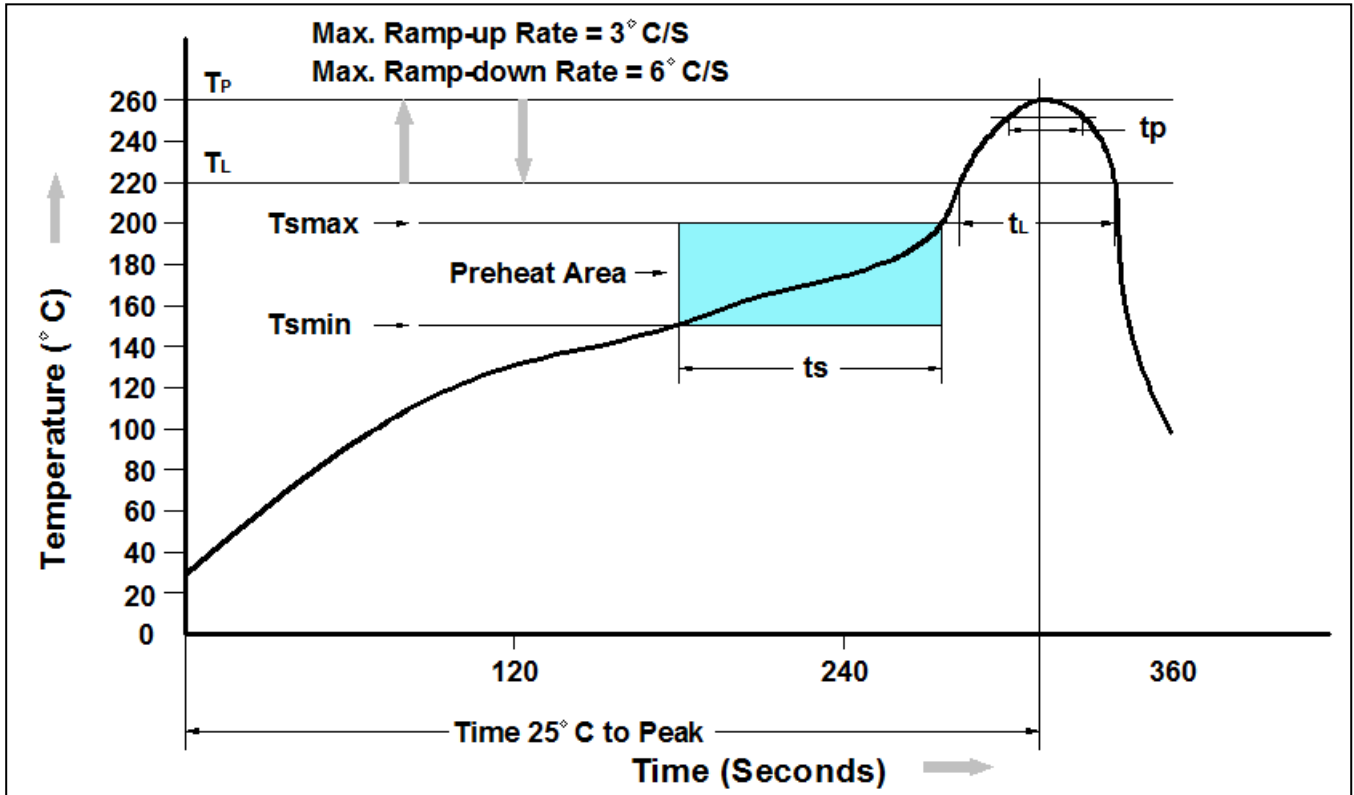
Package	W (mm)	A (mm)	B (mm)	C (mm)	d1 (mm)	d (mm)	E (mm)	F (mm)	P (mm)	P0 (mm)	P1 (mm)	T (mm)
SOD-123FL	8±0.2	2.00±0.1	3.85±0.1	1.1±0.1	1.0	1.50±0.1	1.75±0.1	3.5±0.05	4±0.1	4±0.05	2±0.05	0.23±0.05
SOD-123HE	8±0.3	2.00±0.1	4.00±0.1	1.45±0.1	1.0	1.55±0.1	1.75±0.1	3.5±0.05	4±0.1	4±0.10	2±0.05	0.23±0.10
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
SS1040HEW	SOD-323HE Reel	4,500 pcs

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