



AES1A THRU AES1J

175mA. Super Fast Surface Mount Rectifiers



Voltage Range
50 to 600 Volts
Current
175 mAmpere

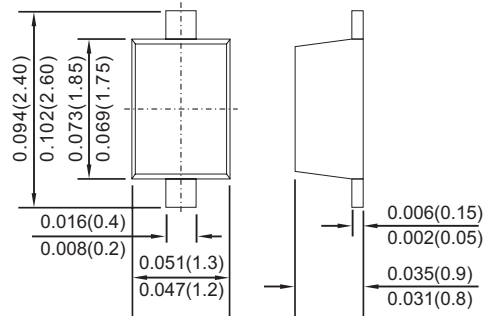
SOD-323F

Features

- ✧ Glass passivated junction chip
- ✧ For surface mounted application
- ✧ Low profile package
- ✧ Built-in strain relief,
- ✧ Ideal for automated placement
- ✧ Easy pick and place
- ✧ Superfast recovery time for high efficiency
- ✧ Glass passivated chip junction
- ✧ High temperature soldering:
260°C/10 seconds at terminals
- ✧ Plastic material used carries Underwriters
Laboratory Classification 94V-O

Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Terminals: Solder plated
- ✧ Polarity: Indicated by cathode band
- ✧ Packing: tape per E1A STD RS-481
- ✧ Weight: 0.01 gram



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	AES 1A	AES 1B	AES 1C	AES 1D	AES 1F	AES 1G	AES 1H	AES 1J	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Marking Code		EA	EB	EC	ED	EF	EG	EH	EJ	
Maximum Average Forward Rectified Current @ 85°C @ 25°C	$I_{(AV)}$ $I_{(PEAK)}$	175 625								mA
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	20								A
Maximum Instantaneous Forward Voltage IF=175mA @ 85°C @ 25°C	V_F	1.25 1.45								V
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage	I_R	0.1								uA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	50								nS
Typical Junction Capacitance (Note 2)	C_j	5								pF
Maximum Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	85 35								°C/W
Operating Temperature Range	T_J	-40 to +85								°C
Storage Temperature Range	T_{STG}	-40 to +85								°C

Notes: 1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$

2. Measured at 1 MHz and Applied $V_R=4.0$ Volts

3. P.C.B. Mounted on 0.2 x 0.2" (5.0 x 5.0mm) Copper Pad Area.