



# AES1A THRU AES1J

## 175mA. Super Fast Surface Mount Rectifiers



Voltage Range  
50 to 600 Volts  
Current  
175 mAmpere

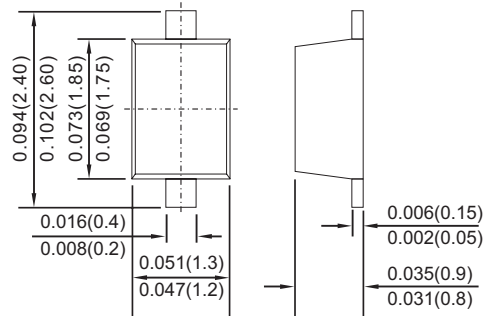
### SOD-323F

### 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 $I_F=175mA$ @ 85°C @ 25°C	$V_F$	1.25 1.45								V
Maximum DC Reverse Current @ $T_A=25°C$ 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								$^{\circ}C/W$
Operating Temperature Range	$T_J$	-40 to +85								$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-40 to +85								$^{\circ}C$

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.