

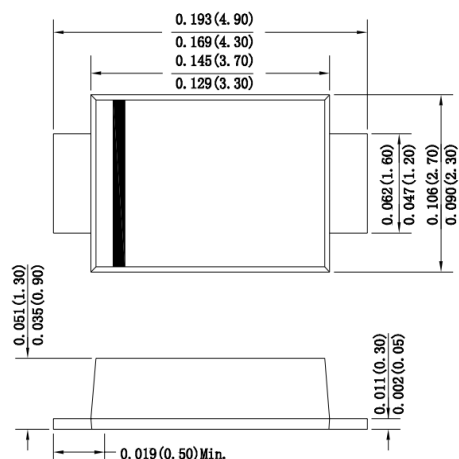
# E1AF~E1JF

## 1.0Amp Super Fast Recovery Surface Mounted Rectifiers

### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Idea for printed circuit board
- ◆ Glass passivated Junction chip
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed 250°C/10 seconds at terminals

### SMAF



Dimensions in inches and (millimeters)

### Mechanical Data

**Case :** Molded plastic body

**Terminals :** Solder plated, solderable per MIL-STD-750,Method 2026

**Polarity :** Polarity symbol marking on body

**Mounting Position :** Any

**Weight :** 0.0014 ounce, 0.038 grams

### 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 current derate by 20%.

Parameter	SYMBOLS	E1AF	E1BF	E1CF	E1DF	E1FF	E1GF	E1JF	UNITS	
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400	600	V	
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280	420	V	
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	300	400	600	V	
Maximum average forward rectified current at $T_L=100^\circ C$	$I_{(AV)}$	1.0							A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30.0							A	
Maximum instantaneous forward voltage at 1.0A	$V_F$	0.95				1.25		1.7	V	
Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage $T_A=125^\circ C$	$I_R$	5.0				500				$\mu A$
Maximum reverse recovery time(Note 1)	$T_{rr}$	35								ns
Typical junction capacitance (Note2)	$C_J$	18.0								pF
Typical thermal resistance	$R_{qJA}$	70.0								$^\circ C/W$
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150							$^\circ C$	

**Note:** 1.Reverse recovery time test condition:  $I_F=0.5A$   $I_R=1.0A$   $I_{rr}=0.25A$   
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

## Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

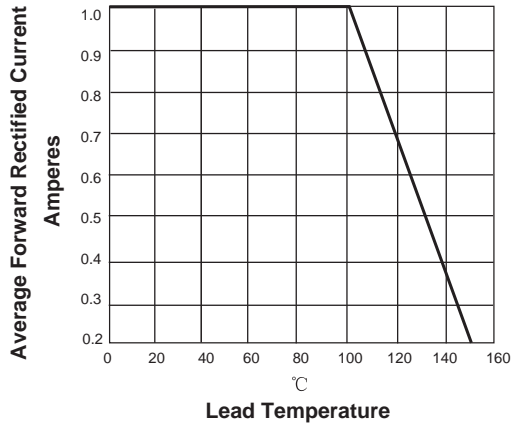


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

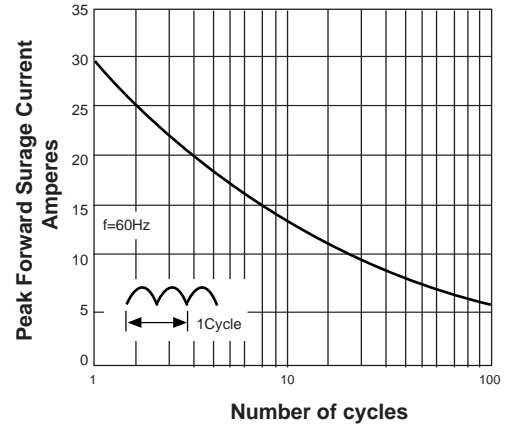


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

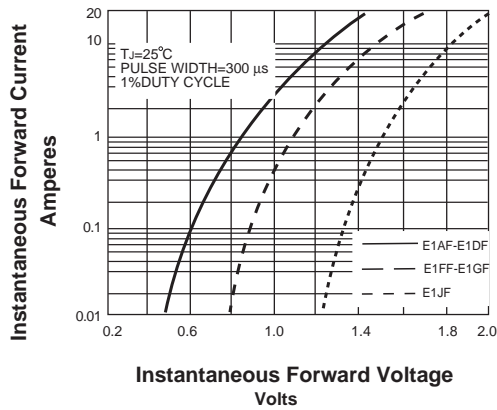


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

