

### TO-277B

### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Built-in strain relief, ideal for automated placement
- ◆ Low forward voltage drop
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed  
250°C/10 seconds at terminals

### Mechanical Data

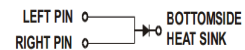
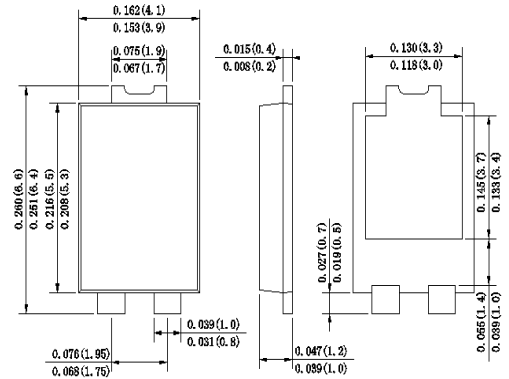
Case : Molded plastic body

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

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.003 ounce, 0.092 grams



Dimensions in inches and (millimeters)

### 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	SL1040	SL1045	SL1050	SL1060	SL1080	SL10100	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	40	45	50	60	80	100	V
Maximum RMS voltage	$V_{RMS}$	28	31.5	35	42	56	70	V
Maximum DC blocking voltage	$V_{DC}$	40	45	50	60	80	100	V
Maximum average forward rectified current at $T_L=100^\circ\text{C}$	$I_{(AV)}$	10.0						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	175.0						A
Maximum instantaneous forward voltage at 2.0A at 10.0A	$V_F$	0.35 0.48		0.40 0.55		0.45 0.70		V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	$I_R$	0.5 50				0.2 20		mA
Typical thermal resistance	$R_{\theta JA}$	60.0						$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	-55 to +150						$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150						$^\circ\text{C}$

### Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

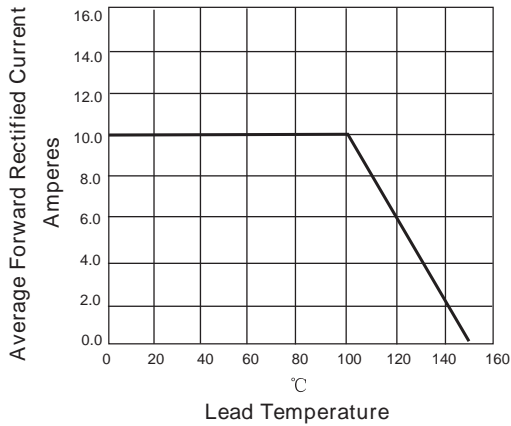


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

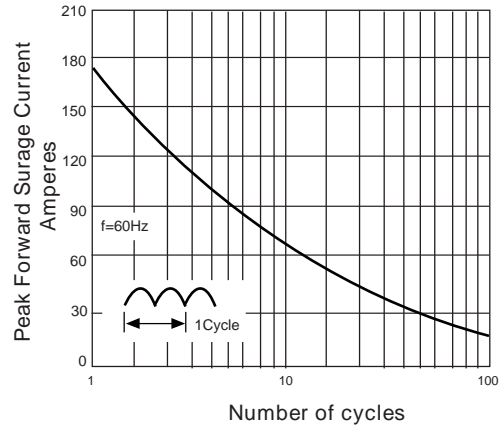


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

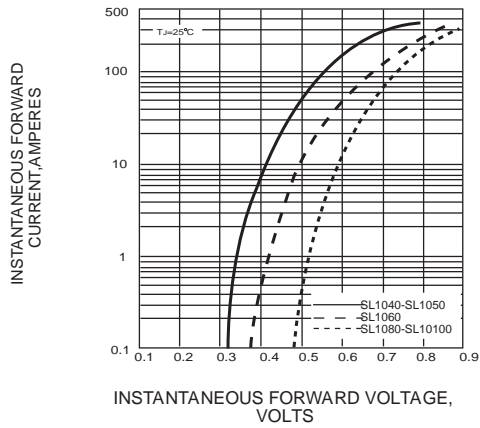


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

