

## SP1040L~SP10100L

### 10.0Amp Surface Mount Schottky Barrier Rectifiers

#### Features

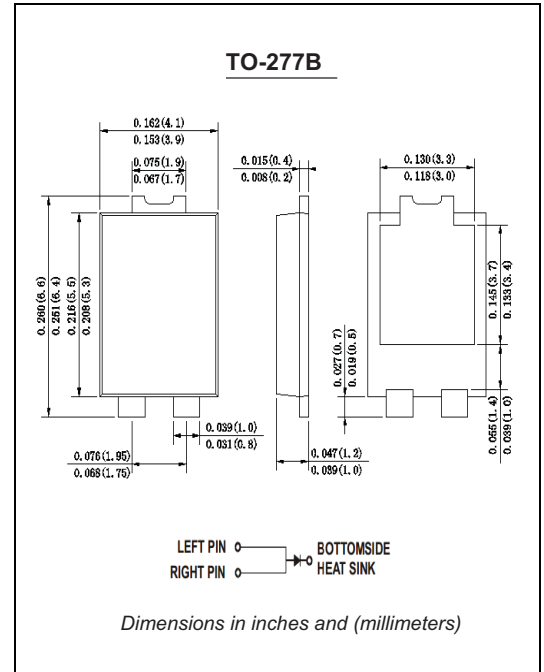
- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals

#### Mechanical Data

**Case:** JEDEC TO-277B molded plastic body

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

**Mounting Position:** Any



#### 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%.

	SYMBOLS	SP1040L	SP1045L	SP1050L	SP1060L	SP10100L	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	40	45	50	60	100	VOLTS
Maximum RMS voltage	$V_{RMS}$	28	32	35	42	70	VOLTS
Maximum DC blocking voltage	$V_{DC}$	40	45	50	60	100	VOLTS
Maximum average forward rectified current at $T_L=110^\circ\text{C}$	$I_{(AV)}$	10.0					Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	175					Amps
Maximum instantaneous forward voltage at 10.0A	$V_F$	$T_A=25^\circ\text{C}$	0.45	0.55	0.68	Volts	
		$T_A=100^\circ\text{C}$	0.42	0.48	0.56		
Maximum DC reverse current at rated DC blocking voltage	$I_R$	$T_A=25^\circ\text{C}$	0.5			mA	
		$T_A=100^\circ\text{C}$	20.0				
Typical thermal resistance (NOTE 1)	$R_{\theta JA}$	31					C/W
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +125					°C

**Note:** 1. Polyimide PCB, 2oz. Copper Cathode pad dimensions 18.8mmx14.4mm. Anode pad dimensions 5.6mmx14.4mm

# Ratings And Characteristic Curves

## SP1020L THRU SP10100L

FIG. 1- FORWARD CURRENT DERATING CURVE

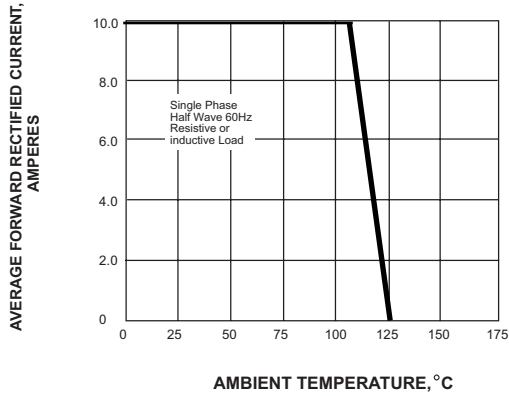


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

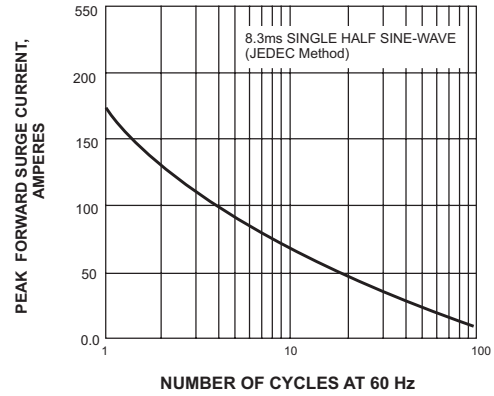


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

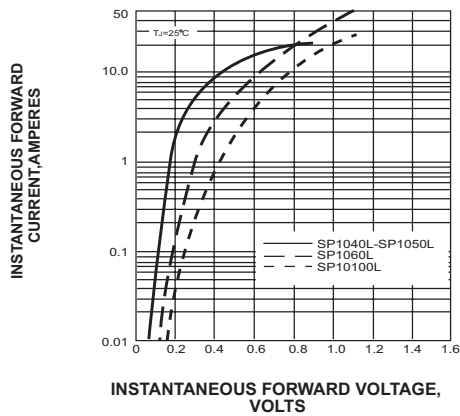


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

