

SP2040L~SP20100L 20.0Amp Surface Mount Schottky Barrier Rectifiers

Features

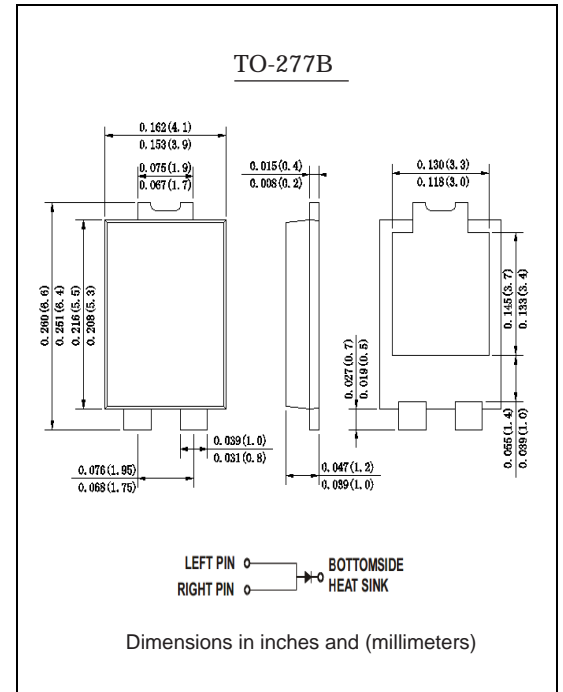
- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals

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	SP2040L	SP2045L	SP2050L	SP2060L	SP20100L	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 $T_L=100^\circ\text{C}$	$I_{(AV)}$	20.0					Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200					Amps
Maximum instantaneous forward voltage at 20.0A	V_F	$T_A=25^\circ\text{C}$ 0.48		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	0.5					mA
		20.0					
Typical thermal resistance (NOTE 1)	$R_{\theta JA}$	43					C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150					$^\circ\text{C}$

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

Ratings And Characteristic Curves

SP2020L THRU SP20100L

FIG. 1- FORWARD CURRENT DERATING CURVE

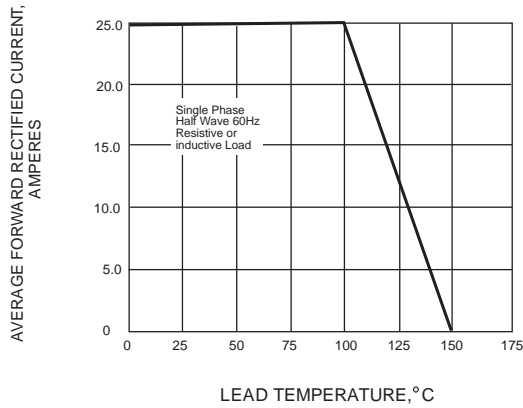


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

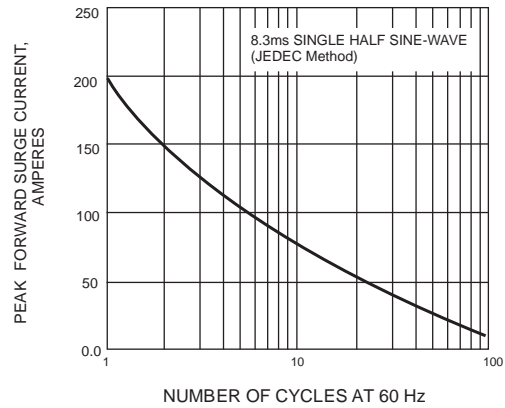


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

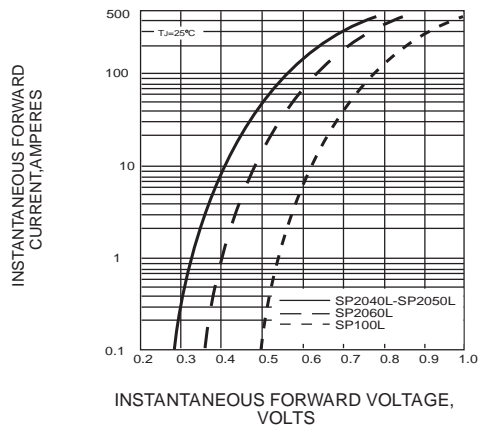


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

