



# SP2020C thru SP2020C

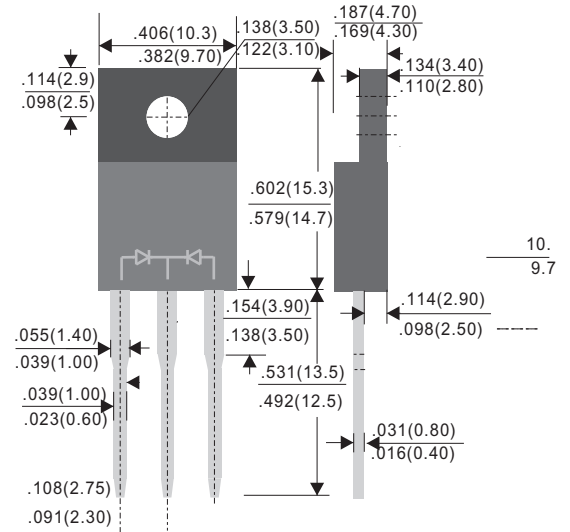
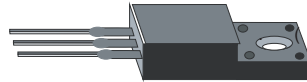
**PB FREE PRODUCT**

## SCHOTTKY BARRIER RECTIFIER

### 20.0AMP SCHOTTKY BARRIER RECTIFIERS TO-220 PACKAGE

#### FEATURES

- \* Low switching noise
- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge capability
- \* Pb free plating 99% Sn above



#### MECHANICAL DATA

- \* Case: ITO-220 Molded plastic
- \* Epoxy: UL 94V-O rate flame retardant
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 1.8 gram

### 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, derate current by 20%

RATINGS	SYMBOL	SP2020C	SP2030C	SP2040C	SP2060C	SP2080C	SP20100C	SP20150C	SP20200C	UNIT
Marking Code		SP2020C	SP2030C	SP2040C	SP2060C	SP2080C	SP20100C	SP20150C	SP20200C	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	60	80	100	150	200	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	42	56	70	105	140	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	60	80	100	150	200	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at T <sub>L</sub> = 90°C	I <sub>o</sub>	20.0								Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	200								Amps
Typical Thermal Resistance (Note 1)	R <sub>θJA</sub>	3.0								°C/W
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	700			500		280			pF
Operating Temperature Range	T <sub>J</sub>	-65 to +125								°C
Storage Temperature Range	T <sub>sTG</sub>	-65 to +150								°C

CHARACTERISTICS	SYMBOL	SP2020C	SP2030C	SP2040C	SP2060C	SP2080C	SP20100C	SP20150C	SP20200C	UNIT
Maximum Forward Voltage at 10.0A DC, pre leg(Note 3)	V <sub>F</sub>	0.55			0.75	0.85		0.92		Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	0.5								mAmps
	@TA=100°C	10 i III								

NOTES :1. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.5" (12.7mm) Lead Length.

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

3. Measured at Pulse Width 300µs, Duty Cycle 2%.

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

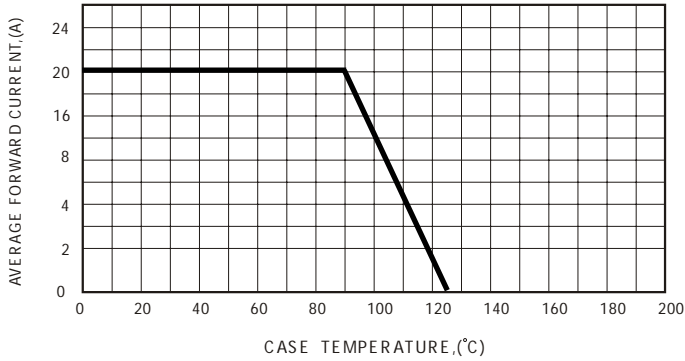


FIG.2-TYPICAL FORWARD CHARACTERISTICS

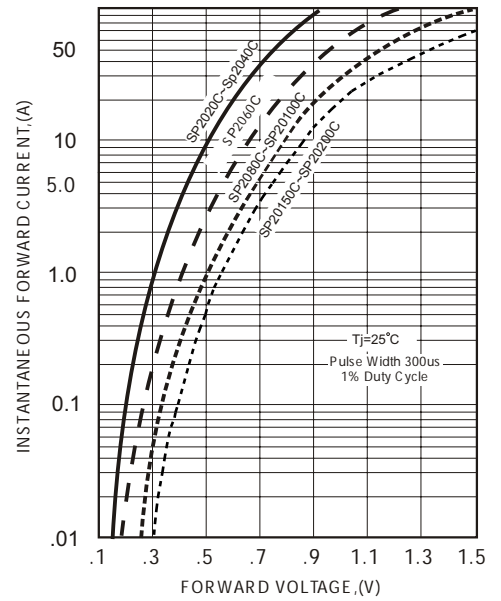


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

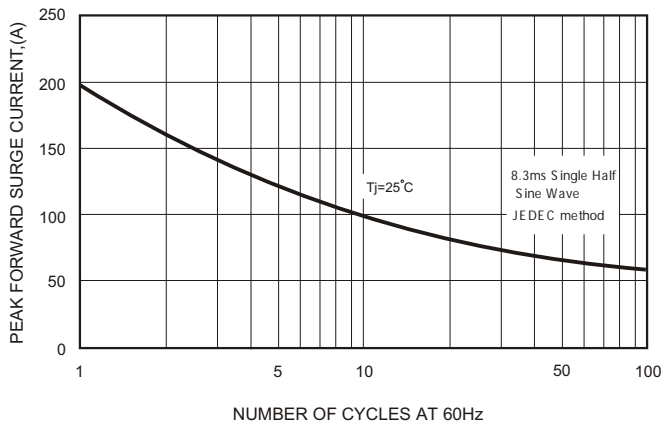


FIG.4-TYPICAL JUNCTION CAPACITANCE

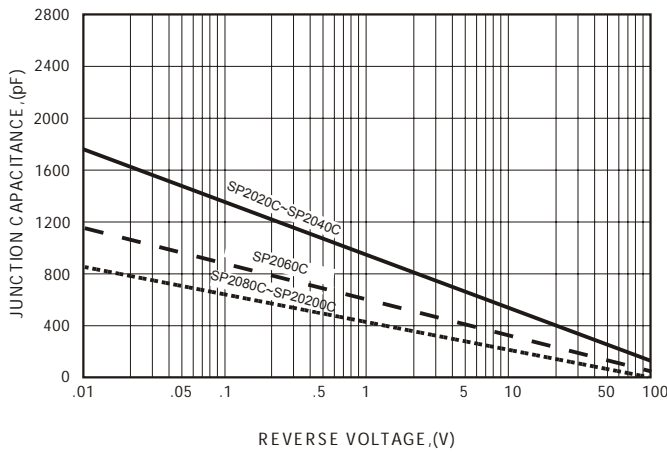


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

