PANJIT SEMI CONDUCTOR

SBU6A~SBU6M

SILICON SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE 50 to 1000 Volts **CURRENT** 6.0 Amperes

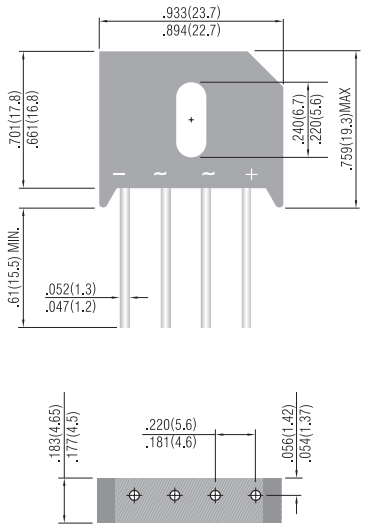
FEATURES

- Plastic material has Underwriters Laboratory Flammability Classification 94V-O
- Ideal for printed circuit board
- Reliable low cost construction ulilizing molded pastic technique.
- High temperature soldering guaranteed:
  260°C/10 seconds/.375"(9.5mm) lead length at 5 lbs. (2.3kg) tension
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: Reliable low cost construction utilizing
- molded plastic technique
- Terminals: Leads solderable per MIL-STD-750, Method 2026
- Mounting position: Any
- Mounting torque: 5 in. lb. Max.
- Weight: 0.2 ounce, 5.6 grams

SBU Unit: inch (mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°Cambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.
For Capacitive load derate current by 20%.

PARAMETER	SYMBOL	SBU6A	SBU6B	SBU6D	SBU6G	SBU6J	SBU6K	SBU6M	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward T_C=100 °C Rectified Output Current at T_A=40 °C	$I_{F(AV)}$	6.0							A
I²t Rating for fusing (t<8.3ms)	I²t	210							A^2sec
Peak Forward Surge Current single sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	225							Apk
Maximum Forward Voltage Drop per Bridge Element at 6.0A	V_F	0.98							Vpk
Maximum Reverse Leakage Current at Rated @ T_A=25°C Dc Blocking Voltage @ T_A=100°C	I_R	3.0 1000							uA
Typical Thermal Resistance per leg (Note 2) Typical Thermal Resistance per leg (Note 3)	$R_{\theta JA}$ $R_{\theta JC}$	17.0 3.0							°C/W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to + 150							°C

NOTES:

1. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw.
2. Units Mounted in free air, no heatsink, P.C.B at 0.375"(9.5mm) lead length with 0.5 x 0.5"(12 x 12mm)copper pads.
3. Units Mounted on a 2.0 x 1.6" x 0.3" thick (5 x 4 x 0.8cm) AL plate.

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RATING AND CHARACTERISTIC CURVES

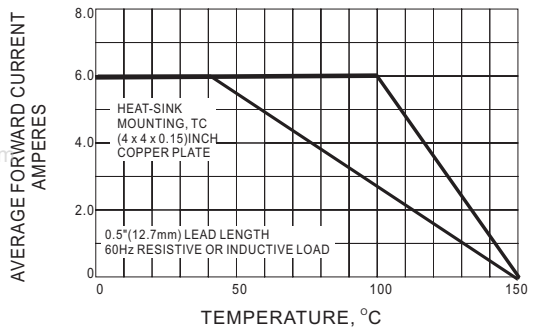

Fig.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

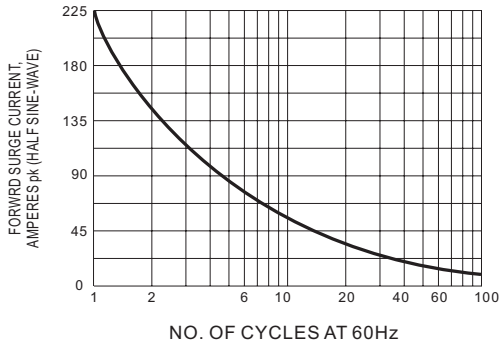

Fig.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

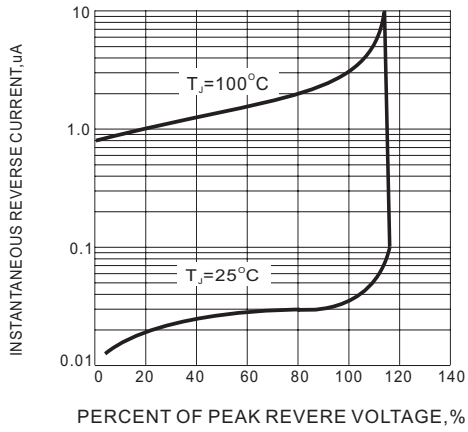

Fig.3 - TYPICAL REVERSE CHARACTERISTICS

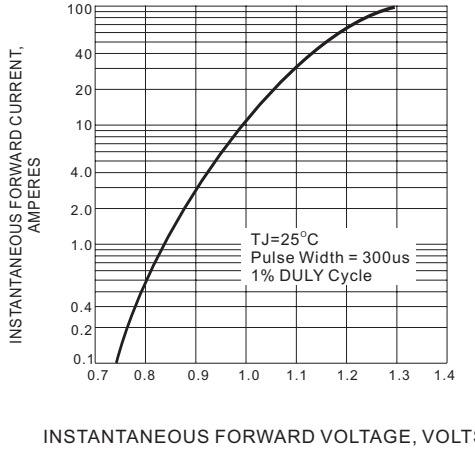

Fig.4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT

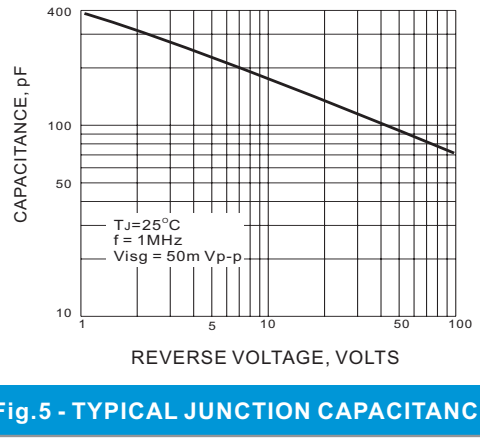

Fig.5 - TYPICAL JUNCTION CAPACITANCE