

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - 30 to 60 Volts
FORWARD CURRENT - 20 Amperes

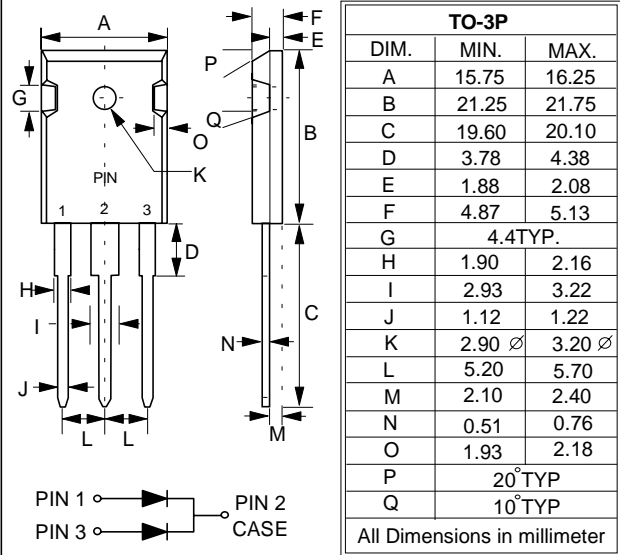
FEATURES

- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free whelling, and polarity protection applications

MECHANICAL DATA

- Case : TO-3P molded plastic
- Polarity : As marked on the body
- Weight : 0.2 ounces, 5.6 grams
- Mounting position : Any

TO-3P



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%

| CHARACTERISTICS | SYMBOL | SBL 2030PT | SBL 2035PT | SBL 2040PT | SBL 2045PT | SBL 2050PT | SBL 2060PT | UNIT |
|--|--------|-------------|------------|------------|------------|------------|------------|------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 30 | 35 | 40 | 45 | 50 | 60 | V |
| Maximum RMS Voltage | VRMS | 21 | 24.5 | 28 | 31.5 | 35 | 42 | V |
| Maximum DC Blocking Voltage | VDC | 30 | 35 | 40 | 45 | 50 | 60 | V |
| Maximum Average Forward Rectified Current @TC=95°C | I(AV) | 20 | | | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD) | IFSM | 250 | | | | | | A |
| Maximum forward Voltage at 10A DC (Note 1) | VF | 0.55 | | | | 0.75 | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ=25°C @TJ=100°C | IR | 1 | | | | 50 | | mA |
| Typical Junction Capacitance per element (Note2) | CJ | 600 | | | | | | pF |
| Typical Thermal Resistance (Note 3) | RθJC | 2.5 | | | | | | °C/W |
| Operating Temperature Range | TJ | -55 to +125 | | | | | | °C |
| Storage Temperature Range | TSTG | -55 to +150 | | | | | | °C |

NOTES : 1. 300us Pulse Width, 2% Duty Cycle.
2. Measured at 1.0MHz and applied reverse voltage of 4.0VDC.
3. Thermal Resistance Junction to Case.

FIG.1 - FORWARD CURRENT DERATING CURVE

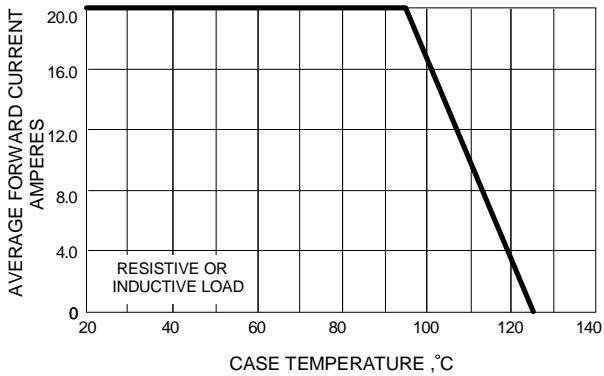


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

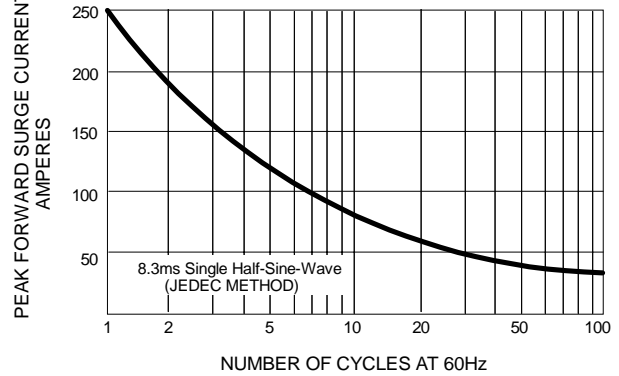


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

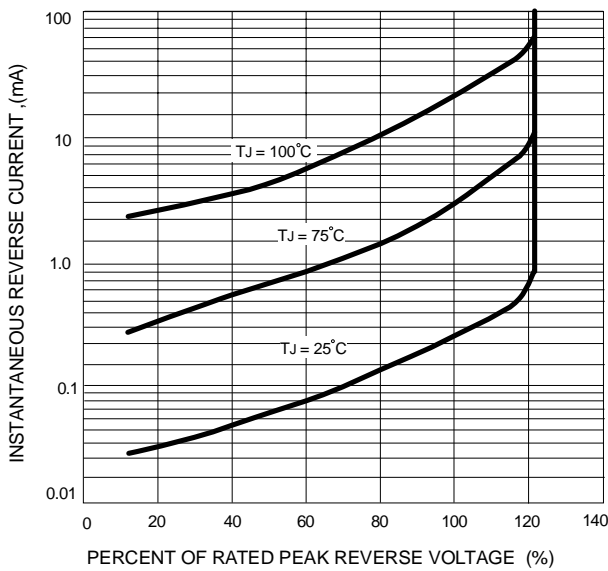


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

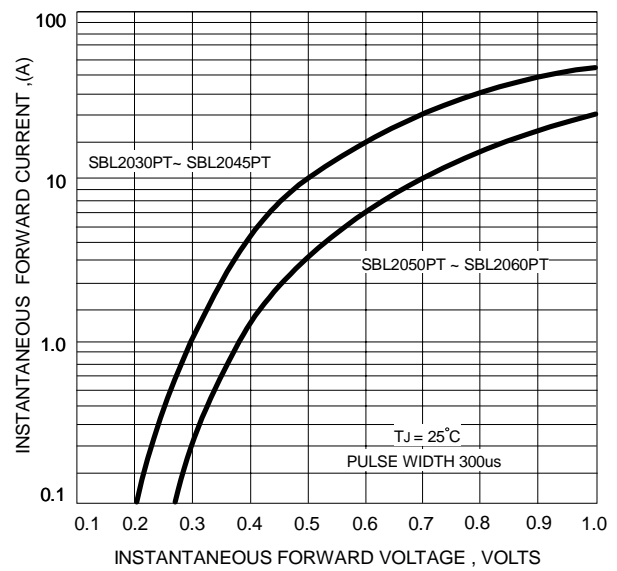


FIG.5 - TYPICAL JUNCTION CAPACITANCE

