

10A SCHOTTKY BARRIER RECTIFIERS

| | | Value Inch[mm] | |
|------|--|----------------|---------------|
| Dim. | | Min. | Max. |
| A | | 0.139 [3.55] | --- |
| B | | 0.387 [9.85] | 0.419 [10.66] |
| C | | 0.226 [5.75] | 0.269 [6.85] |
| D | | 0.548 [13.93] | 0.624 [15.87] |
| E | | 0.50 [12.70] | --- |
| F | | --- | 0.177 [4.50] |
| G | | 0.095[2.41] | 0.105[2.67] |
| H | | 0.019 [0.50] | 0.038 [0.96] |
| J | | 0.163 [4.16] | 0.196 [5.00] |
| K | | 0.045 [1.15] | 0.054 [1.39] |
| L | | --- | 0.025 [0.65] |

| | | Value Inch[mm] | |
|------|--|----------------|--------------|
| Dim. | | Min. | Max. |
| A | | 0.118 [3.0] | 0.134 [3.4] |
| B | | 0.381 [9.7] | 0.406[10.3] |
| C | | 0.248 [6.3] | 0.272 [6.9] |
| D | | 0.583 [14.8] | 0.606 [15.4] |
| E | | 0.512 [13.0] | 0.548 [13.9] |
| F | | --- | 0.161 [4.1] |
| G | | 0.095[2.41] | 0.105[2.67] |
| H | | 0.019 [0.50] | 0.028 [0.7] |
| J | | 0.165 [4.2] | 0.189 [4.8] |
| K | | 0.099 [2.5] | 0.130 [3.3] |
| L | | --- | 0.032 [0.8] |

PRODUCT FEATURES

1. FLAMMABILITY CLASSIFICATION 94V-0
2. EXTREMELY LOW V_F
3. LOW STORED CHARGE
4. MAJORITY CARRIER CONDUCTION
5. LOW POWER LOSS/HIGH EFFICIENCY
6. CASE: TRANSFER MOLDED
TO-220AB FOR SB10xxCT
ITO-220AB FOR SB10xxFCT
7. DIMENSIONS IN INCHES AND (MILLIMETERS)
8. LEADS: SOLDERABILITY PER MIL-STD-202 METHOD 208
9. WEIGHT: 2.15 GRAMS (TO-220AB)
1.55GRAMS (ITO-220AB)
10. RoHS COMPLIANT AND HALOGEN FREE

ELECTRICAL CHARACTERISTICS

MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED) AND ELECTRICAL CHARACTERISTICS

| RATING | SYMBOL | UNITS |
|--|-----------------|---|
| MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT, SEE FIG.1 | I_o | 10 PER DEVICE (5 PER LEG) A |
| PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD | I_{FSM} | 125 A |
| TYPICAL THERMAL RESISTANCE | $R_{\theta JC}$ | 2.2 (4.0 FOR $\geq 60\text{V}$ DEVICE) $^\circ\text{C/W}$ |
| STORAGE TEMPERATURE RANGE | T_{STG} | - 65 TO +175 $^\circ\text{C}$ |
| OPERATING TEMPERATURE RANGE | T_J | - 55 TO +125 $^\circ\text{C}$ |
| MAXIMUM REVERSE CURRENT AT 25°C PER LEG (NOTE 1) | I_R | 0.5 mA |
| MAXIMUM REVERSE CURRENT AT 125°C PER LEG (NOTE 1) | I_R | 20 mA |
| ISOLATION VOLTAGE FROM TERMINAL TO HEATSINK $T=1\text{MIN}$ | | 1500 (FOR SB10xxFCT ONLY) VAC |

| PART NUMBER | MAX RECURRENT PK REVERSE VOLTAGE/DC BLOCKING V_{RRM}/V_R (V) | MAX V_{RMS} (V) | MAXIMUM FORWARD VOLTAGE V_F @ $I_F=5\text{A}$ | |
|-------------|--|-------------------|---|-----------------------|
| | | | @ 25°C | @ 125°C |
| SB1040(F)CT | 40 | 28 | 0.55V | 0.50V |
| SB1045(F)CT | 45 | 31.5 | 0.55V | 0.50V |
| SB1060(F)CT | 60 | 42 | 0.65V | 0.60V |
| SB1065(F)CT | 65 | 45.5 | 0.65V | 0.60V |

NOTE : 1. PULSE TEST: 300 μs PULSE WIDTH, 1% DUTY CYCLE.

2. CURRENT RATING IS BASED ON SINGLE PHASE, 1/2 WAVE, 60HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%.



RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - FORWARD DERATING CURVE

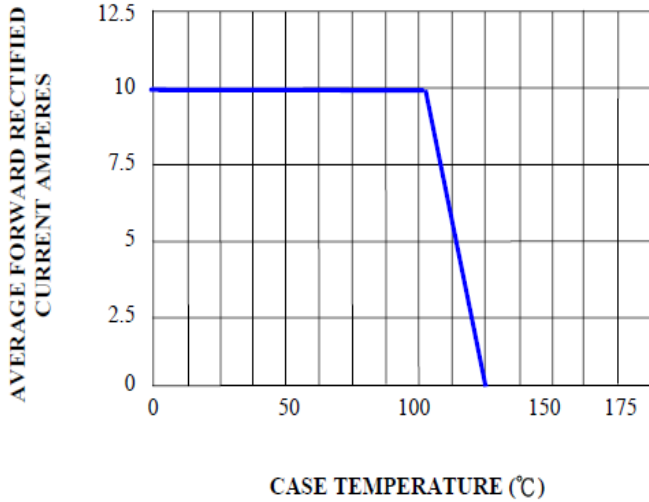


FIG. 2 - PEAK FORWARD SURGE CURRENT

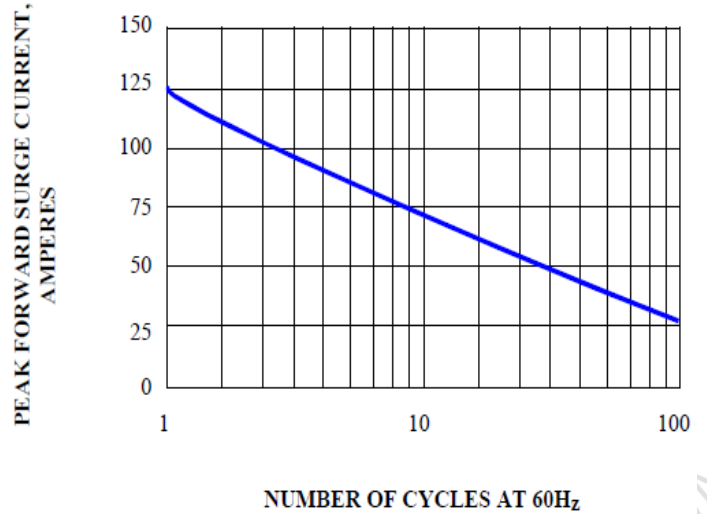


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

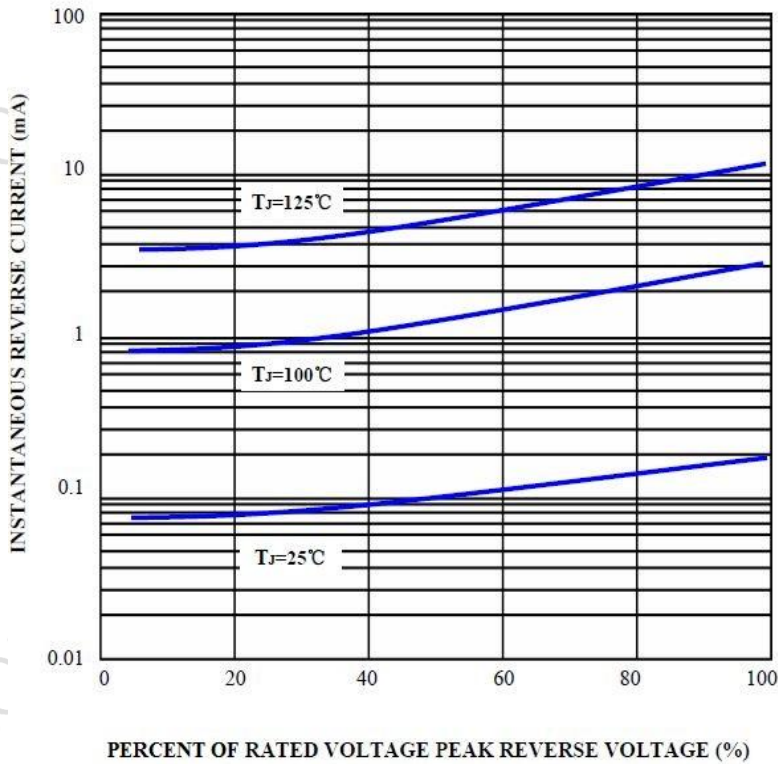


FIG. 4 - TYPICAL FORWARD CHARACTERISTIC PER LEG

