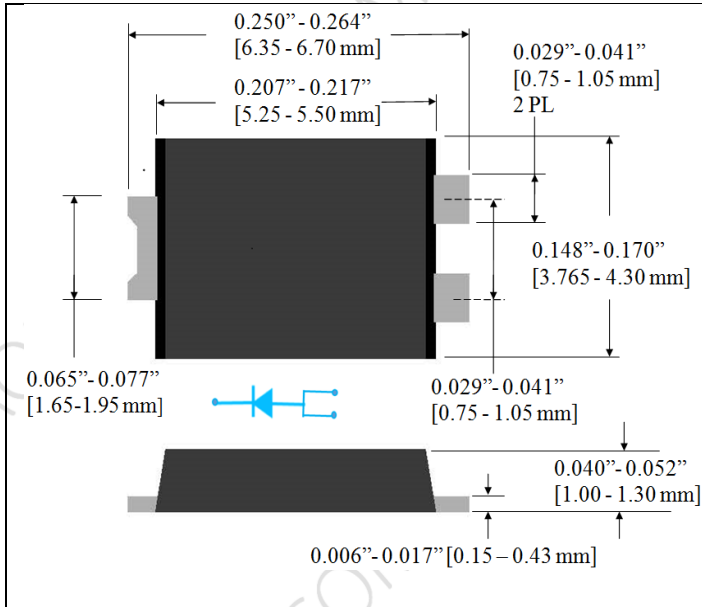


## 20A SCHOTTKY BARRIER RECTIFIERS



### 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-277B
7. DIMENSIONS IN INCHES AND (MILLIMETERS)
8. LEADS: SOLDERABILITY PER MIL-STD-202 METHOD 208
9. WEIGHT: 0.095 GRAM
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                               | $I_o$           | 20           | A                  |
| PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD | $I_{FSM}$       | 240          | A                  |
| TYPICAL THERMAL RESISTANCE   | $R_{\theta JC}$ | 23           | $^\circ\text{C/W}$ |
| STORAGE TEMPERATURE RANGE  | $T_{STG}$       | - 65 TO +175 | $^\circ\text{C}$   |
| OPERATING TEMPERATURE RANGE  | $T_J$           | - 55 TO +150 | $^\circ\text{C}$   |
| MAXIMUM REVERSE CURRENT AT $25^\circ\text{C}$ PER LEG (NOTE 1)                     | $I_R$           | 0.5          | mA                 |
| MAXIMUM REVERSE CURRENT AT $125^\circ\text{C}$ PER LEG (NOTE 1)                    | $I_R$           | 20           | mA                 |

| PART NUMBER | MAX RECURRENT PK REVERSE VOLTAGE/DC BLOCKING $V_{RRM}/V_R$ (V) | MAX $V_{RMS}$ (V) | MAXIMUM FORWARD VOLTAGE $V_F$ @ $I_F=20\text{A}$ |                       |
|-------------|--|-------------------|--|-----------------------|
|             |  |                   | @ $25^\circ\text{C}$                             | @ $125^\circ\text{C}$ |
| F20S45      | 45   | 31.5              | 0.49V  | 0.45V                 |
| F20S50      | 50   | 35                | 0.49V  | 0.45V                 |

NOTE : 1. PULSE TEST: 300 $\mu\text{s}$  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

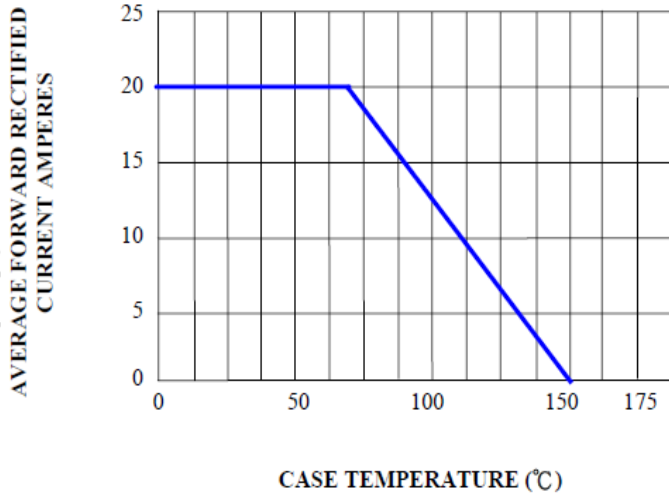


FIG. 2 - PEAK FORWARD SURGE CURRENT

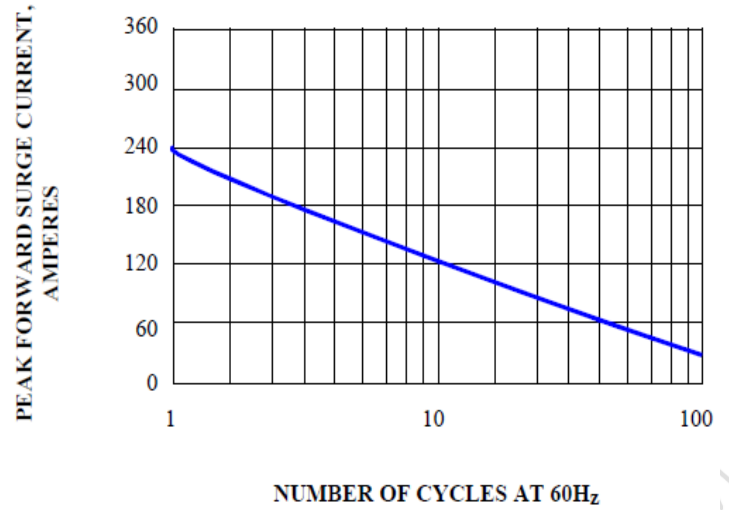


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

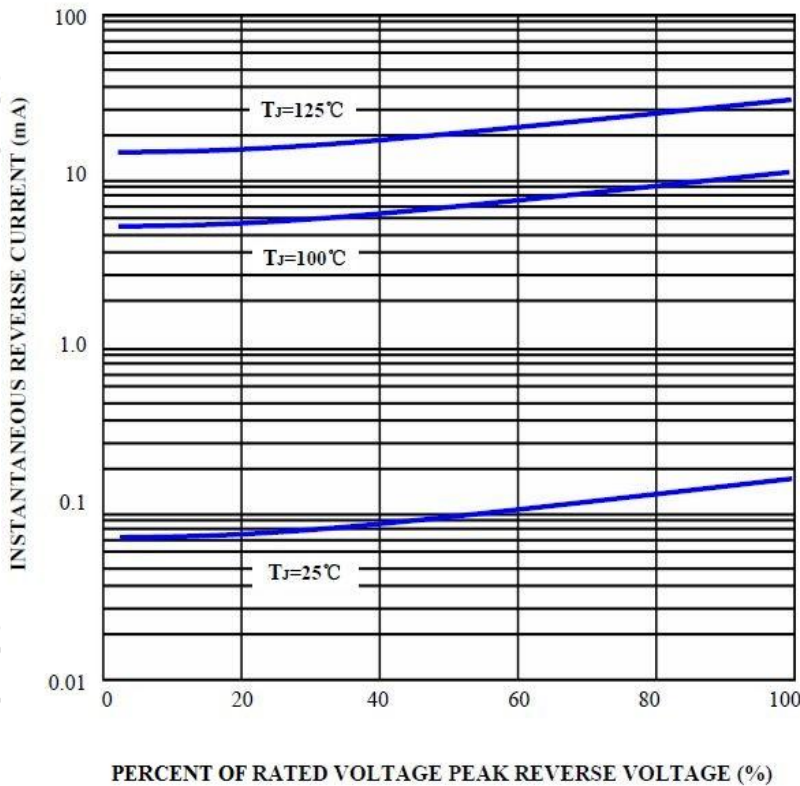


FIG. 4 - TYPICAL FORWARD CHARACTERISTIC PER LEG

