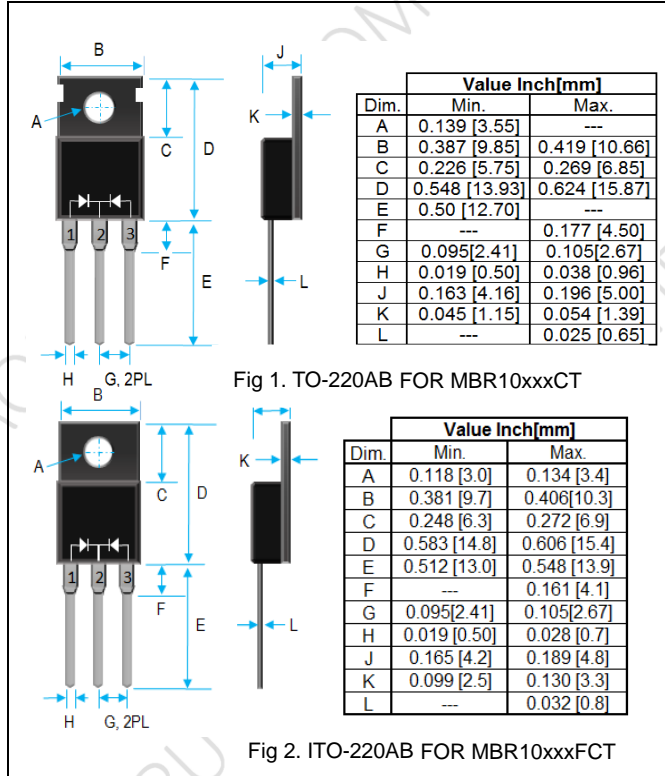


10A SCHOTTKY BARRIER RECTIFIERS



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-220AB FOR MBR10xxxCT
ITO-220AB FOR MBR10xxxFCT
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 $\geq 100V$ DEVICE) $^\circ\text{C/W}$ |
| STORAGE TEMPERATURE RANGE | T_{STG} | - 65 TO +175 $^\circ\text{C}$ |
| MAXIMUM REVERSE CURRENT AT 25 $^\circ\text{C}$ PER LEG (NOTE 1) | I_R | 0.05 (0.01mA FOR $\geq 100V$ DEVICE) mA |
| MAXIMUM REVERSE CURRENT AT 125 $^\circ\text{C}$ PER LEG (NOTE 1) | I_R | 10 mA |
| ISOLATION VOLTAGE FROM TERMINAL TO HEATSINK T=1MIN | | 1500 (FOR MBR10xxxFCT ONLY) VAC |

| PART NUMBER | MAX RECURRENT PK REVERSE VOLTAGE/DC BLOCKING V_{RRM}/V_R (V) | MAX V_{RMS} (V) | OPERATING TEMPERATURE RANGE ($^\circ\text{C}$) | MAXIMUM FORWARD VOLTAGE V_F @ $I_F=5A$ @25 $^\circ\text{C}$ | MAXIMUM FORWARD VOLTAGE V_F @ $I_F=5A$ @125 $^\circ\text{C}$ | MAXIMUM FORWARD VOLTAGE V_F @ $I_F=10A$, @25 $^\circ\text{C}$ | MAXIMUM FORWARD VOLTAGE V_F @ $I_F=10A$, @125 $^\circ\text{C}$ |
|---------------|--|-------------------|--|---|--|--|---|
| MBR1040(F)CT | 40 | 28 | - 55 TO +150 | 0.65V | 0.57V | 0.84V | 0.72V |
| MBR1045(F)CT | 45 | 31.5 | - 55 TO +150 | 0.65V | 0.57V | 0.84V | 0.72V |
| MBR1060(F)CT | 60 | 42 | - 55 TO +150 | 0.75V | 0.70V | 0.85V | 0.75V |
| MBR10100(F)CT | 100 | 70 | - 55 TO +150 | 0.85V | 0.75V | 0.95V | 0.85V |
| MBR10150(F)CT | 150 | 105 | - 55 TO +175 | 0.92V | 0.80V | 1.00V | 0.90V |
| MBR10200(F)CT | 200 | 140 | - 55 TO +175 | 0.92V | 0.80V | 1.00V | 0.90V |

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

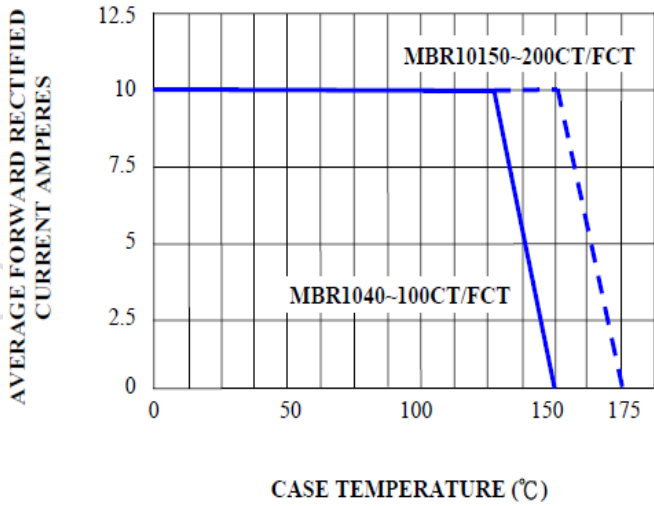


FIG. 2 - PEAK FORWARD SURGE CURRENT

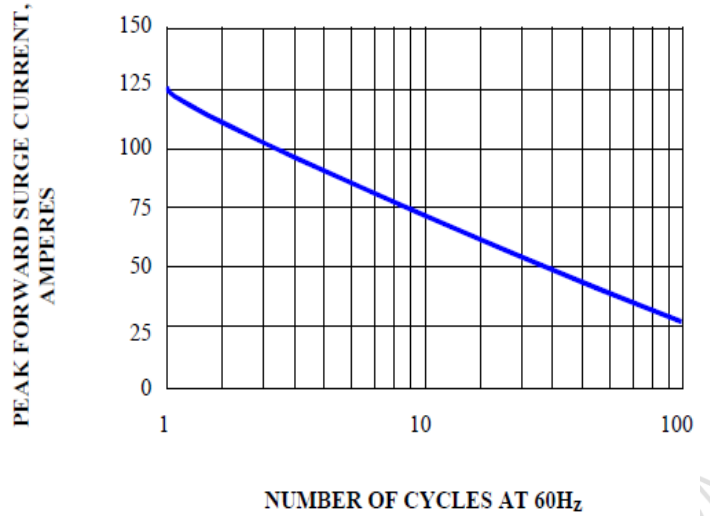


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

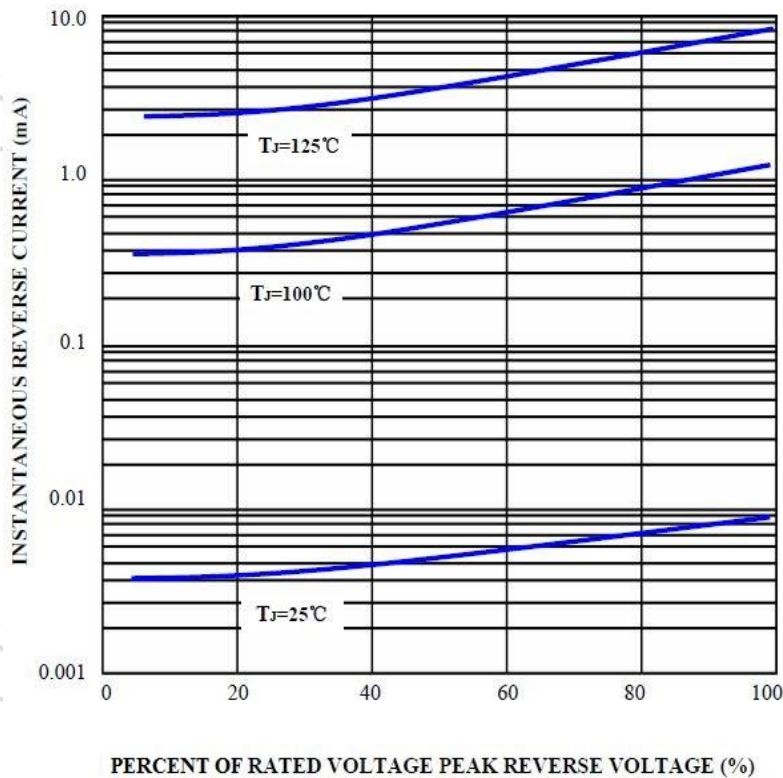


FIG. 4 - TYPICAL FORWARD CHARACTERISTIC PER LEG

