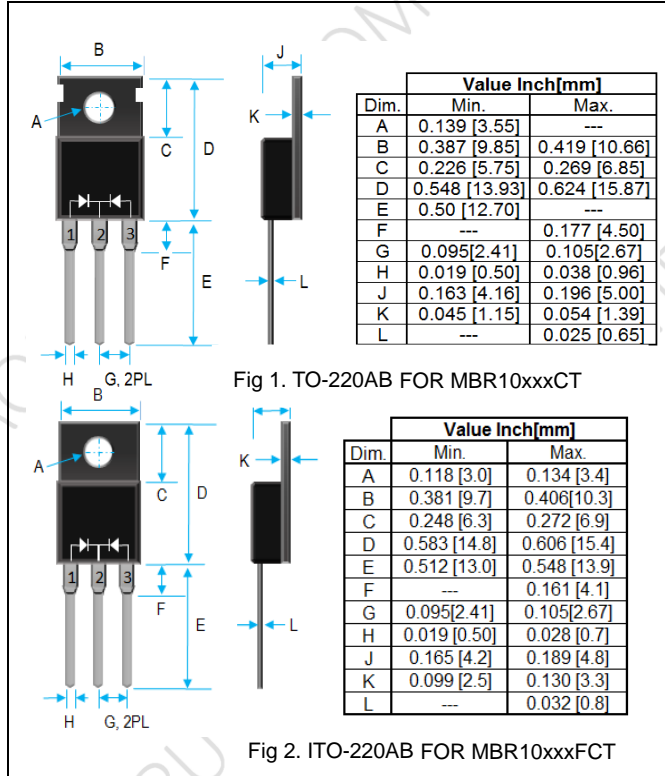


## 10A SCHOTTKY BARRIER RECTIFIERS



### 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 $\mu\text{s}$  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

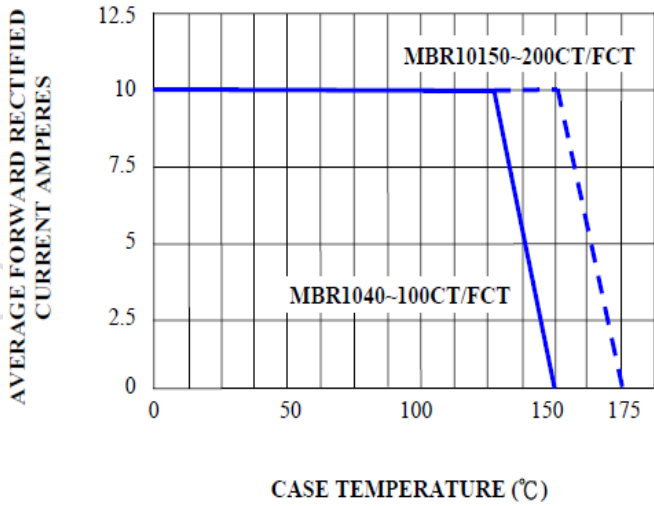


FIG. 2 - PEAK FORWARD SURGE CURRENT

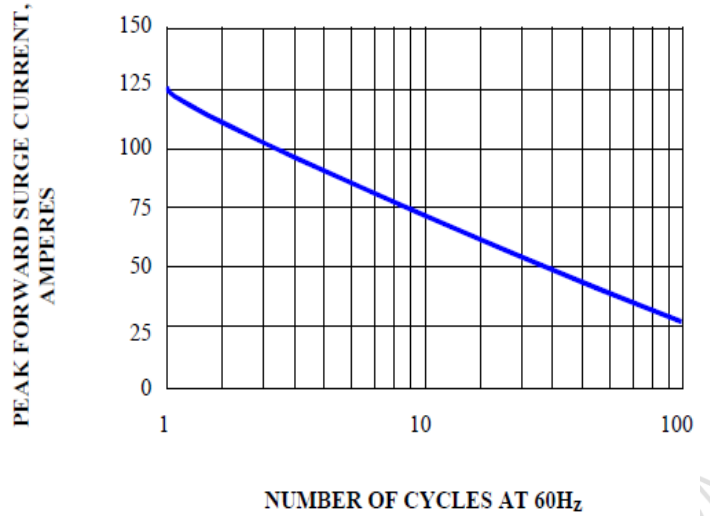


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

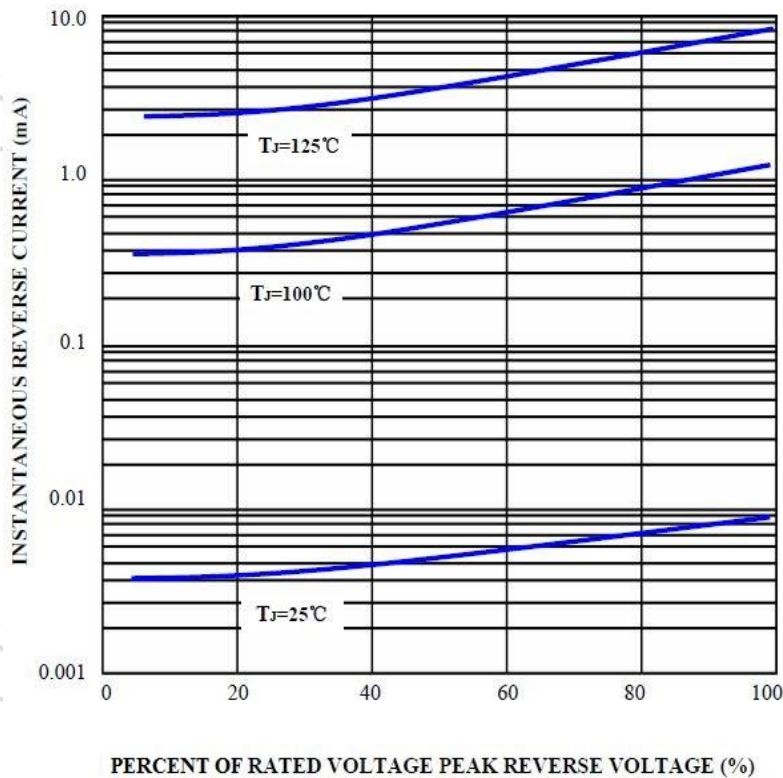


FIG. 4 - TYPICAL FORWARD CHARACTERISTIC PER LEG

