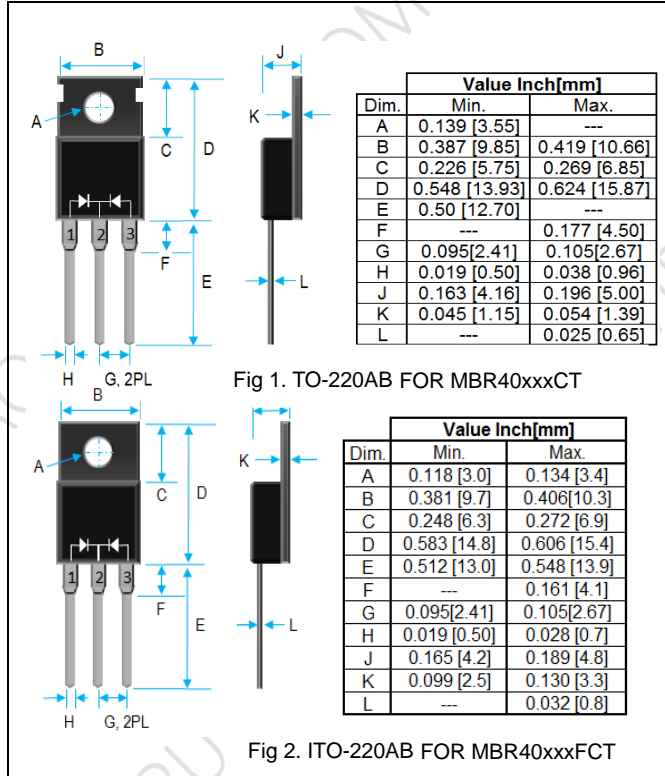


## 40A SCHOTTKY BARRIER RECTIFIERS



### 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 MBR40xxxCT  
ITO-220AB FOR MBR40xxxFCT
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	$I_o$	40 PER DEVICE (20 PER LEG) A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	$I_{FSM}$	400 A
TYPICAL THERMAL RESISTANCE	$R_{\theta JC}$	2.2 (4.0 FOR $\geq 100\text{V}$ 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)	$I_R$	0.1 (0.01mA FOR $\geq 100\text{V}$ DEVICE) mA
MAXIMUM REVERSE CURRENT AT 125 $^\circ\text{C}$ PER LEG (NOTE 1)	$I_R$	15 mA
ISOLATION VOLTAGE FROM TERMINAL TO HEATSINK T=1MIN		1500 (FOR MBR40xxxFCT 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 $V_f$ @ $I_F=20\text{A}$	
				@25 $^\circ\text{C}$	@125 $^\circ\text{C}$
MBR4040(F)CT	40	28	- 55 TO +150	0.65V	0.57V
MBR4045(F)CT	45	31.5	- 55 TO +150	0.65V	0.57V
MBR4060(F)CT	60	42	- 55 TO +150	0.75V	0.70V
MBR40100(F)CT	100	70	- 55 TO +150	0.85V	0.75V
MBR40150(F)CT	150	105	- 55 TO +175	0.95V	0.85V
MBR40200(F)CT	200	140	- 55 TO +175	0.95V	0.85V

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

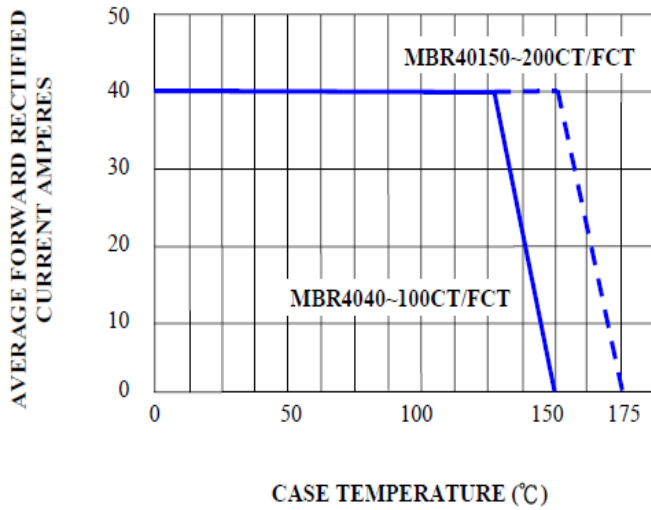


FIG. 2 - PEAK FORWARD SURGE CURRENT

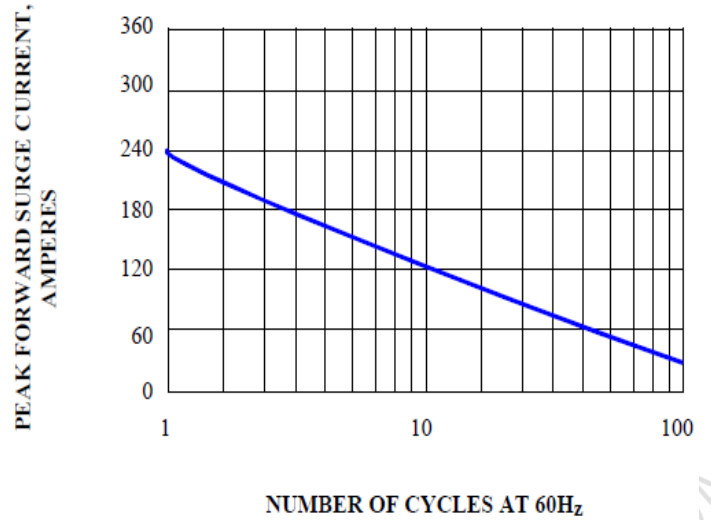


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

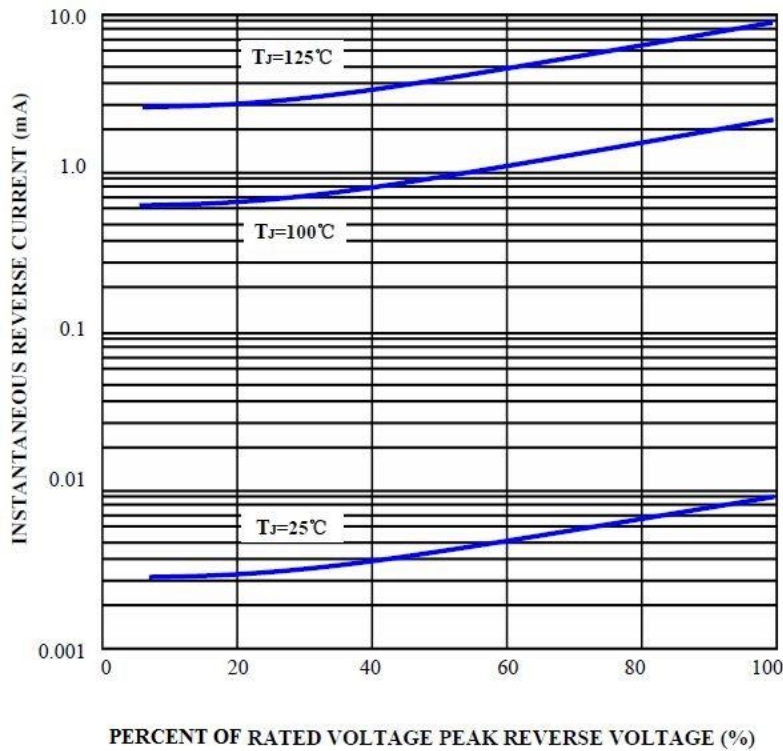


FIG. 4 - TYPICAL FORWARD CHARACTERISTIC PER LEG

