

10A Schottky Barrier Rectifiers 40~200V
PRIMARY CHARACTERISTICS

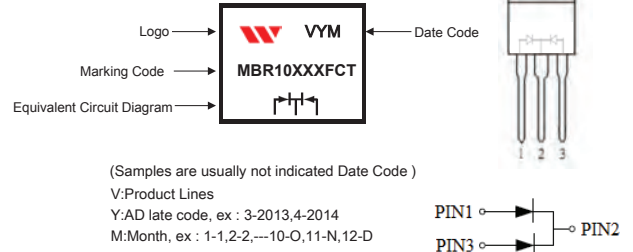
I_{FSM}	125A
I_F	5A X 2
V_{RRM}	40~200V
V_F	0.65V, 0.75V, 0.85V, 0.92V
$T_J \text{ Max}$	150°C

FEATURES

- EXTREMELY LOW V_F
- LOW STORED CHARGE,
MAJORITY CARRIER CONDUCTION
- LOW POWER LOSS / HIGH EFFICIENCY
- UL 94V0 FLAME RETARDANT EPOXY
MOLDING COMPOUND

ITO-220 PACKAGE

- Body Marking Example X: Please see specifications


MECHANICAL DATA

- CASE : TRANSFORMER MOLDED
- LEADS SOLDERABLE PER MIL-STD-202,
METHOD 208
- POLARITY AS MARKED

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED
SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD.
FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

RATINGS	SYMBOL	MBR1040 FCT	MBR1045 FCT	MBR1060 FCT	MBR10100 FCT	MBR10150 FCT	MBR10200 FCT	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	40	45	60	100	150	200	V
MAXIMUM RMS VOLTAGE	V_{RMS}	28	31.5	42	70	105	140	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	40	45	60	100	150	200	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT SEE FIG.1 PER LEG	I_O	10 5						A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD PER LEG	I_{FSM}	125						A
STORAGE TEMPERATURE RANGE	T_{STG}	- 55 TO + 150						°C
OPERATING JUNCTION TEMPERATURE RANGE	T_J	- 55 TO + 150						°C

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MBR1040 FCT	MBR1045 FCT	MBR1060 FCT	MBR10100 FCT	MBR10150 FCT	MBR10200 FCT	UNITS
MAXIMUM FORWARD VOLTAGE AT I _F = 5A T _J =25°C	V _F	0.65		0.75	0.85	0.92		V
T _J =125°C		0.57		0.70	0.75	0.80		
AT I _F = 10A T _J =25°C		0.84		0.85	0.95	1.00		
T _J =125°C		0.72		0.75	0.85	0.90		
MAXIMUM REVERSE CURRENT AT 25°C PER LEG (NOTE 1)	I _R	50			10			μA
MAXIMUM REVERSE CURRENT AT 125°C PER LEG (NOTE 1)	I _R	10						mA

THERMAL CHARACTERISTICS ($T_c = 25^\circ C$ UNLESS OTHERWISE NOTED)

PARAMETER	SYMBOL	MBR10xxxCT	UNITS
TYPICAL THERMAL RESISTANCE JUNCTION TO CASE PER LEG	$R_{\theta jc}$	4.0	°C/W

NOTES : 1. PULSE TEST: 300μS PULSE WIDTH, 1% DUTY CYCLE.



FIG. 1 - FORWARD DERATING CURVE

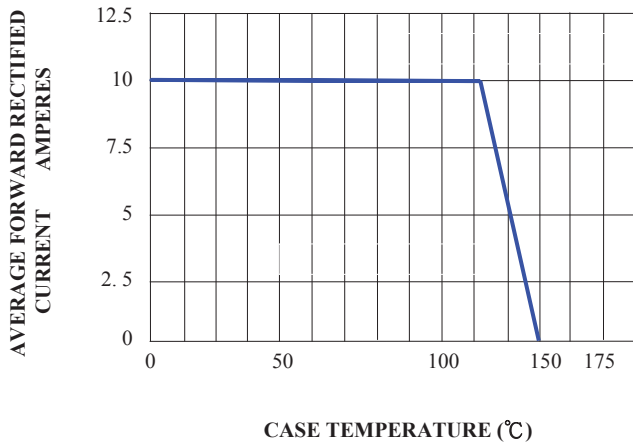


FIG. 2 - PEAK FORWARD SURGE CURRENT

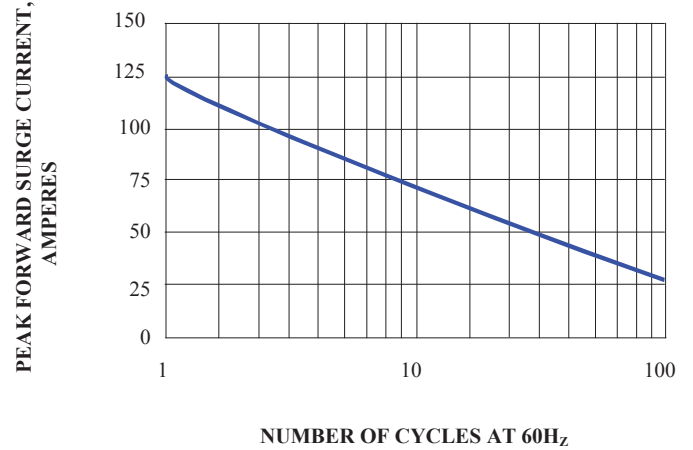


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

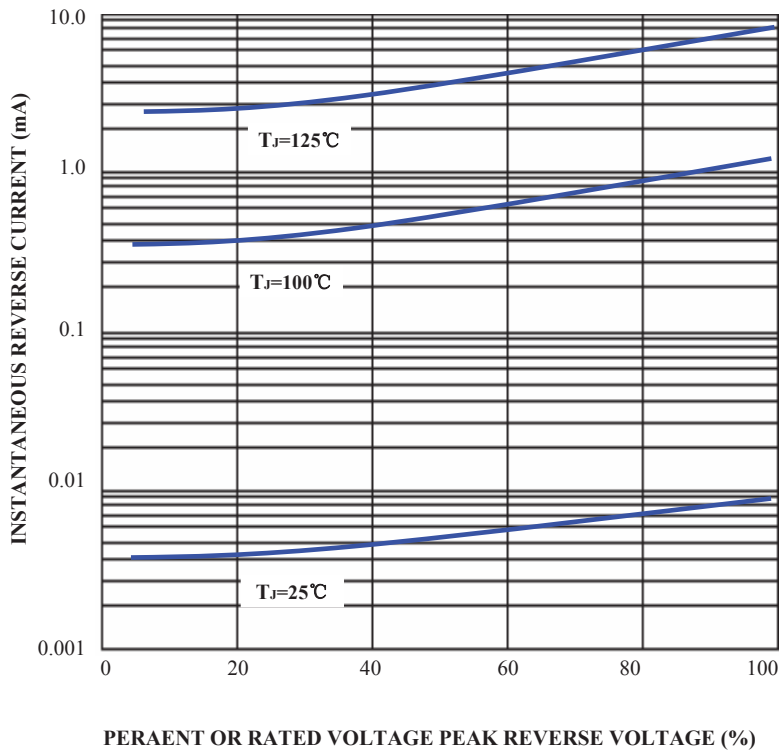
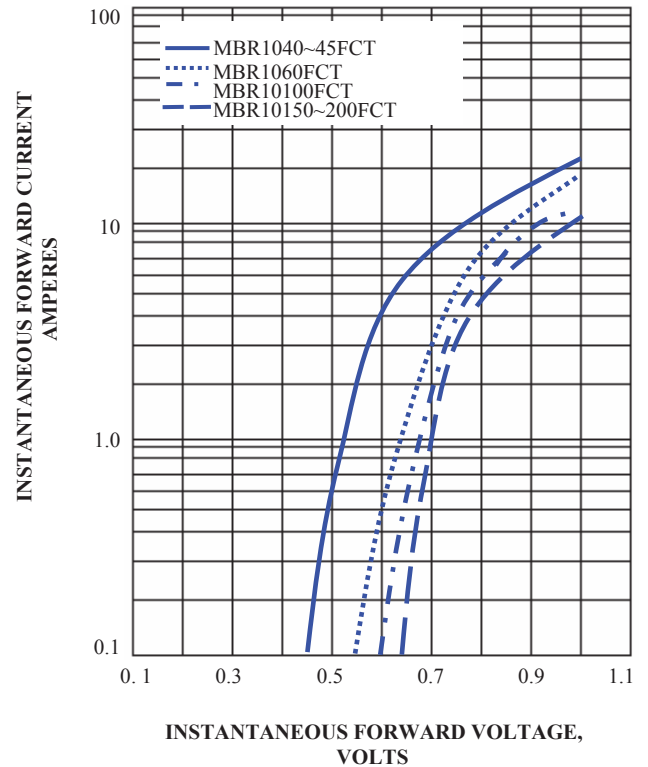


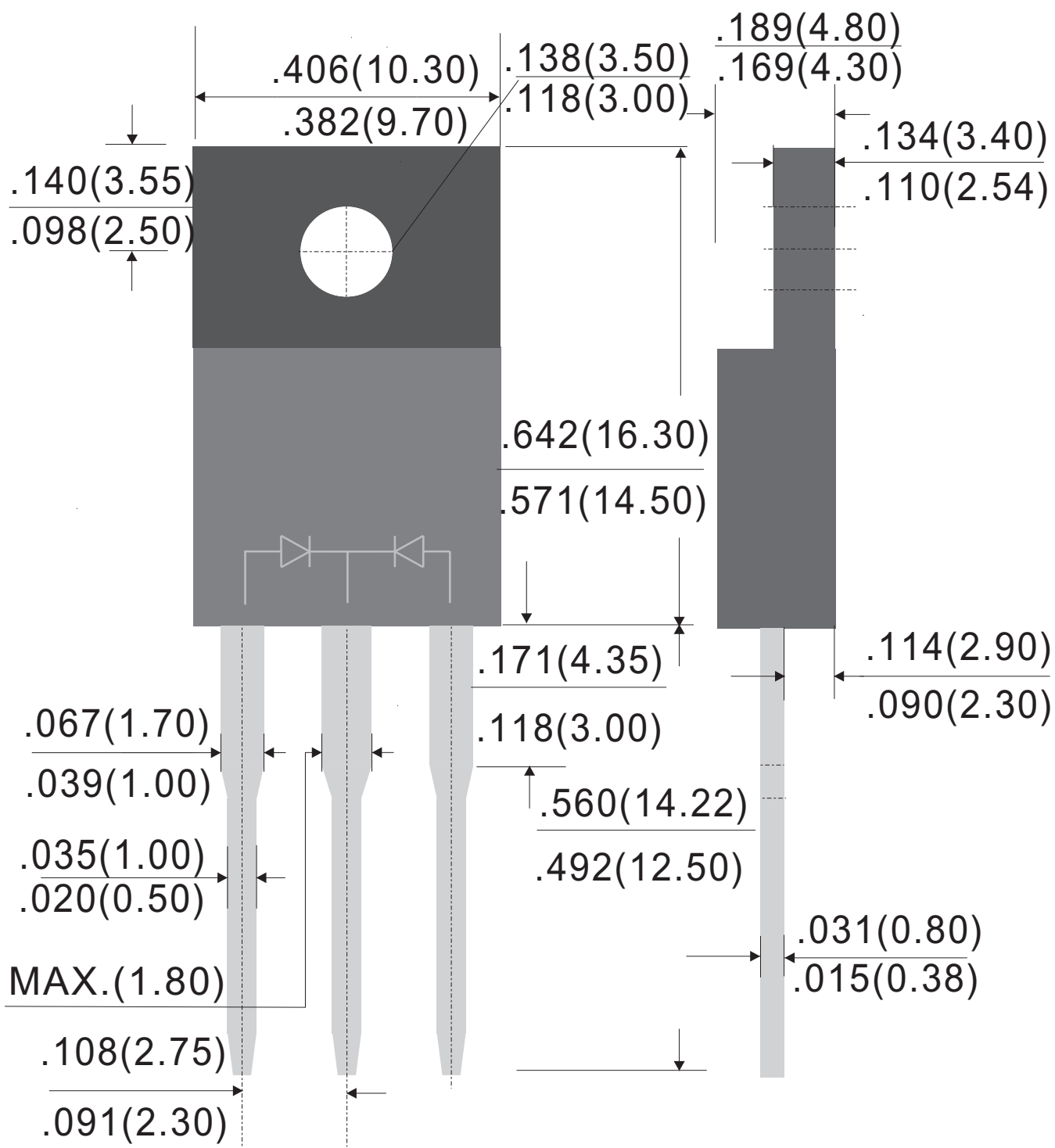
FIG. 4 - TYPICAL FORWARD CHARACTERISTIC PER LEG





Outline Drawing

ITO-220



Dimensions in inches and (millimeters)

Rev.J

Ordering Information:

Device PN	Packing
Part Number ⁽¹⁾ G ⁽²⁾ -WS	Tube Packing:50pcs/Tube; 1000pcs/Box

Note: 1. Packing code: Empty is Tube Packing
2. RoHS product for packing code suffix "G" .

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