

PRIMARY CHARACTERISTICS

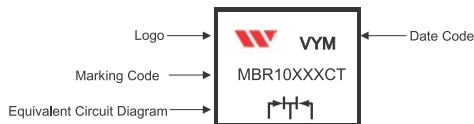
I_{FSM}	125A
I_F	5A X 2
V_{RRM}	40~200V
V_F	0.65V,0.75V,0.85V,0.92V
T_J Max	150°C

FEATURES

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

TO-220 PACKAGE

- Body Marking Example [X:Please see specifications](#)

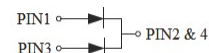


(Samples are usually not indicated Date Code)

V:Product Lines

Y:AD late code, ex : 3-2013,4-2014

M:Month, ex : 1-1,2-2,...10-O,11-N,12-D



MECHANICAL DATA

- CASE: TRANSFER 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, 60Hz, resistive of inductive load.

For capacitive load, derate current by 20%

RATINGS	SYMBOL	MBR 1040CT	MBR 1045CT	MBR 1060CT	MBR 10100CT	MBR 10150CT	MBR 10200CT	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	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	MBR 1040CT	MBR 1045CT	MBR 1060CT	MBR 10100CT	MBR 10150CT	MBR 10200CT	UNITS
MAXIMUM FORWARD VOLTAGE AT I _F = 5A T _J =25°C	VF	0.65		0.75	0.85	0.92		V

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

PARAMETER	SYMBOL	MBR10XXXCT	UNITS
TYPICAL THERMAL RESISTANCE JUNCTION TO CASE PER LEG	$R_{\theta JC}$	2.2	°C/W

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



FIG. 1 - FORWARD DERATING CURVE

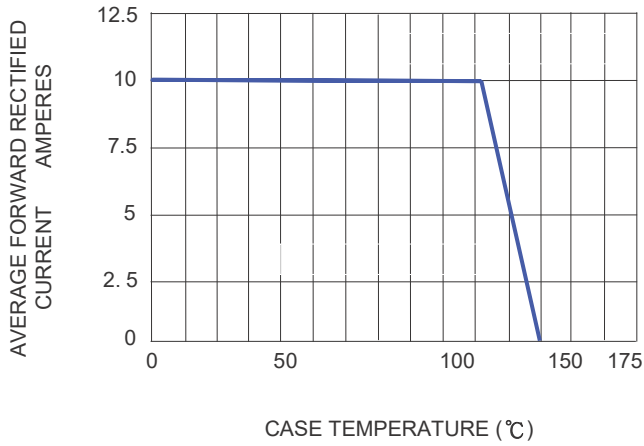


FIG. 2 - PEAK FORWARD SURGE CURRENT

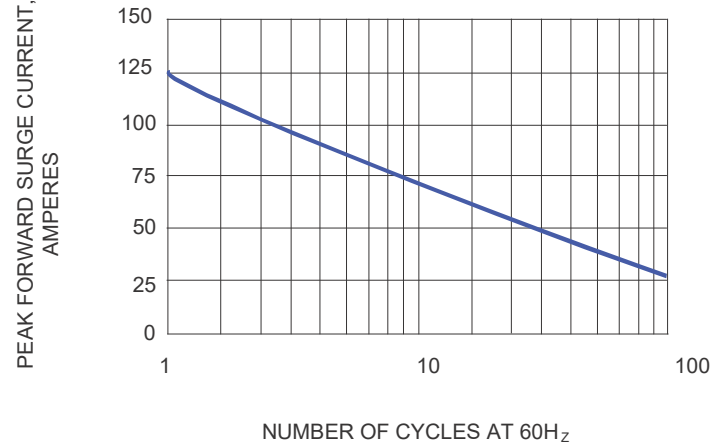


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

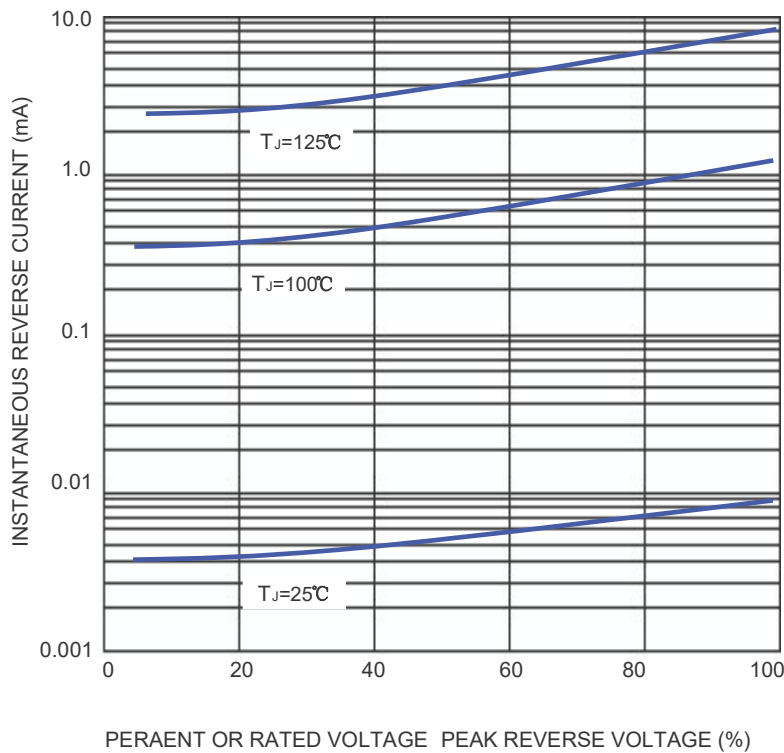
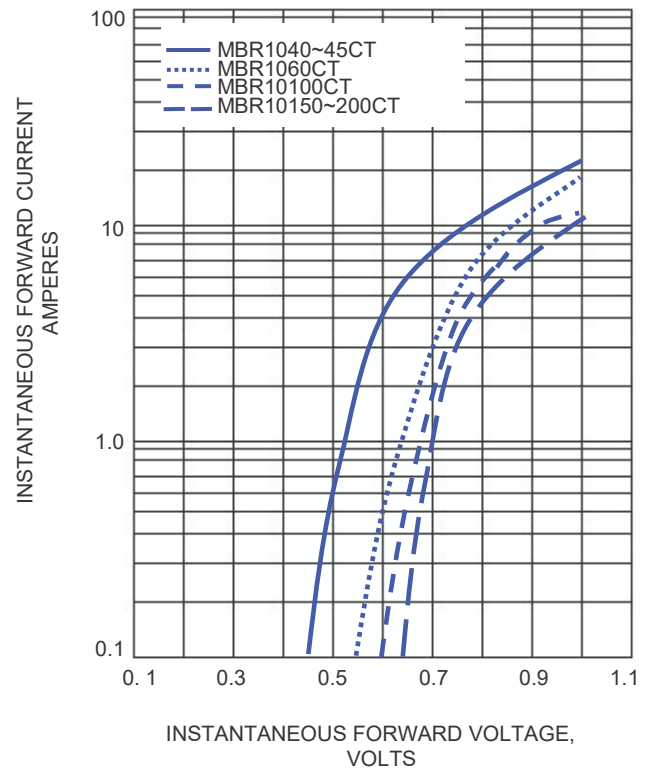


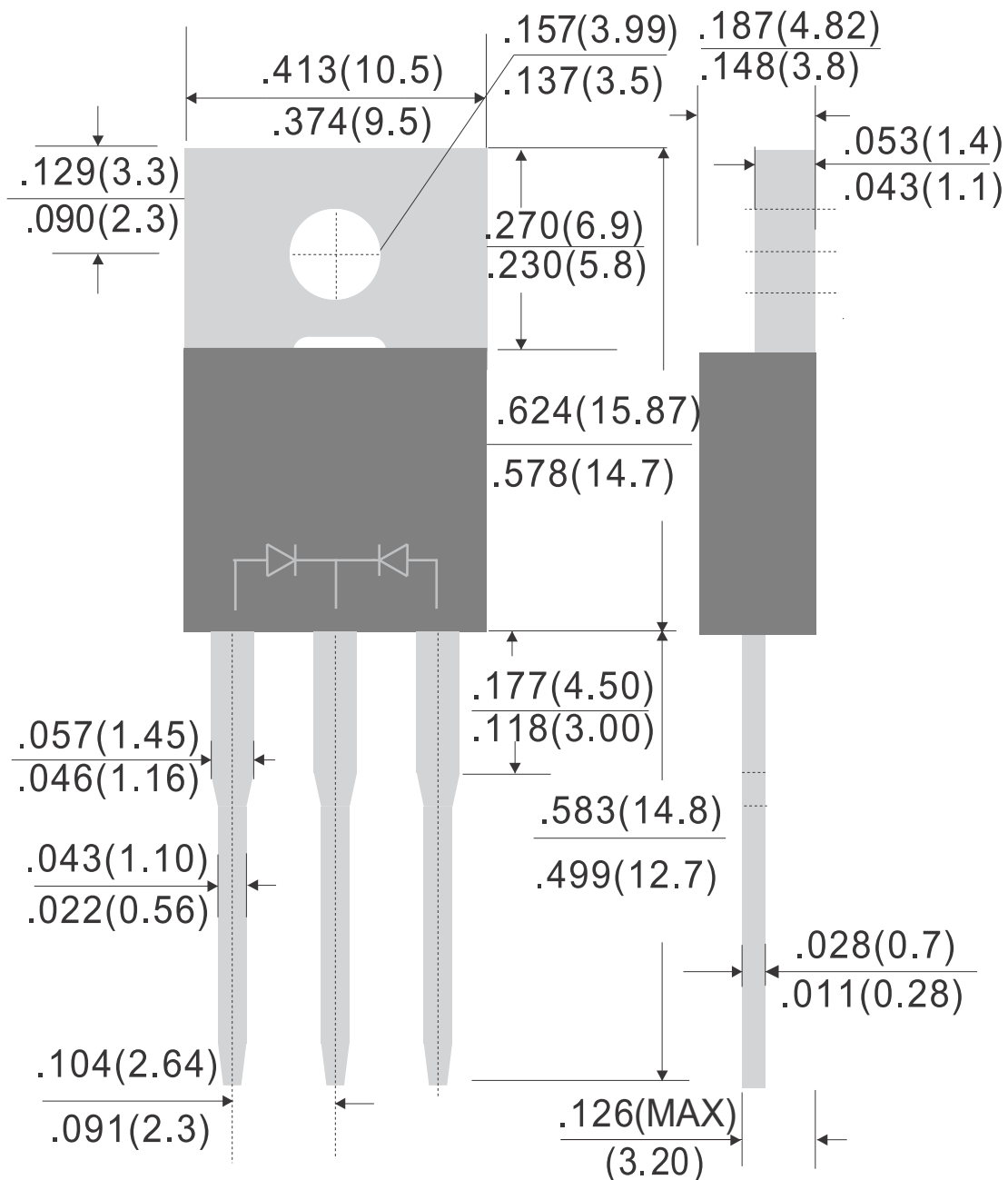
FIG. 4 - TYPICAL FORWARD CHARACTERISTIC PER LEG





Outline Drawing

TO-220



Rev.J

Ordering Information:

Device PN	Marking ⁽⁴⁾	Packing
Part Number-T ⁽¹⁾ H ⁽²⁾ -WS ⁽³⁾	Refer to Page 1	Tube Packing:50pcs/Tube; 1000pcs/Box

Note: (1) Packing code, Tape & Reel Packing

(2) Packing code Suffix"H" for halogen free product. All materials and products supplied comply with the U.S. Toxic Substances Control Act statement, PBT Chemicals.

(3) Willas brand abbreviation, Label Type does not display.

(4) There may be additional marking, which relates to the lot trace code information (data code and vendor code), the logo or the environmental category on the device.

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