WILLAS

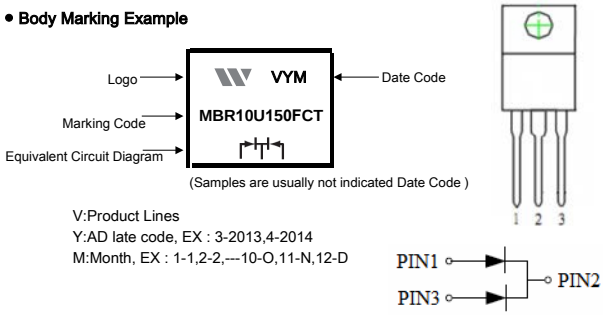
RoHS COMPLIANT

MBR10U1p0FCT

10A Ultra Low VF Trench MOS Schottky Rectifiers - 1p0V

PRIMARY CHARACTERISTICS	
I_O	5A×2
V_{RRM}	150V
I_{FSM}	125A
V_F@5A, T_J=125°C	0.62V
$T_{J\ Max}$	150℃

ITO-220 PACKAGE



FEATURES

- EXTREMELY LOW VF
- TRENCH MOS SCHOTTKY TECHNOLOGY
- LOW POWER LOSS / HIGH EFFICIENCY
- HIGH FREQENCY OPERATION
- HALOGEN FREE
- HIGH FORWARD SURGE CAPABILITY
- MOISTURE SENSITIVITY LEVEL 1

MECHANICAL DATA

- CASE：TRANSFER MOLDED,ITO-220
- LEADS：SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY：AS MARKED
- TERMINALS：PURETIN PLATED

MAXIMUM RATINGS (T_A =25℃ UNLESS OTHERWISE NOTED) AND ELECTRICAL CHARACTERISTICS

RATINGS	SYMBOL	MBR10U150FCT	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	150	V
MAXIMUM RMS VOLTAGE	V_{RMS}	105	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	150	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
OPERATING JUNCTION TEMPERATURE RANGE	T_J	- 55 TO + 150	℃
STORAGE TEMPERATURE RANGE	T_{STG}	- 55 TO + 175	℃

RATINGS	SYMBOL	MIN	TYP	MAX	UNITS
MAXIMUM FORWARD VOLTAGE AT I_F= 5A T_J =25℃	VF	--	--	0.80	V
T_J =125℃		--	0.62	0.64	
MAXIMUM REVERSE CURRENT $V_R = V_{RRM}$ @T_J=25℃ PER LEG (NOTE 1)	I_R	0.03			mA
MAXIMUM REVERSE CURRENT $V_R = V_{RRM}$ @T_J=125℃ PER LEG (NOTE 1)		10			
TYPICAL THERMAL RESISTANCE JUNCTION TO CASE PER LEG	$R_{\theta jc}$	4.0			℃/W
ISOLATION VOLTAGE(ITO-220 ONLY)FROM TERMINAL TO HEATSINK T=1MIN	V_{AC}	1500			V

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

RATINGS AND CHARACTERISTIC CURVES

FIG. 1-FORWARD CURRENT DERATING CURVE

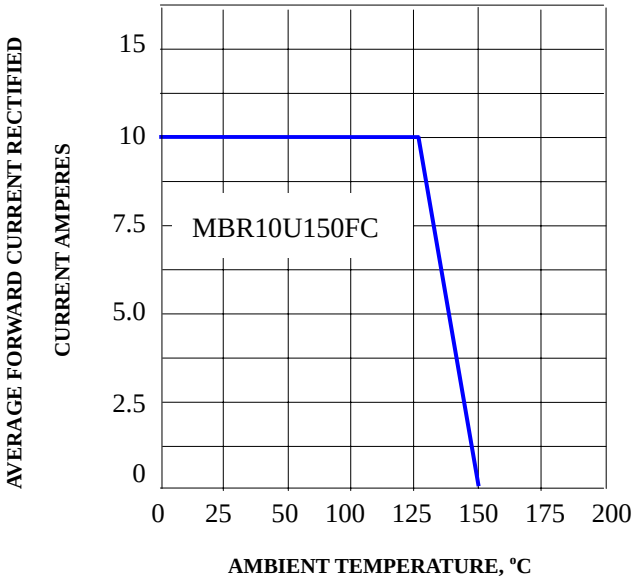


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE RATING

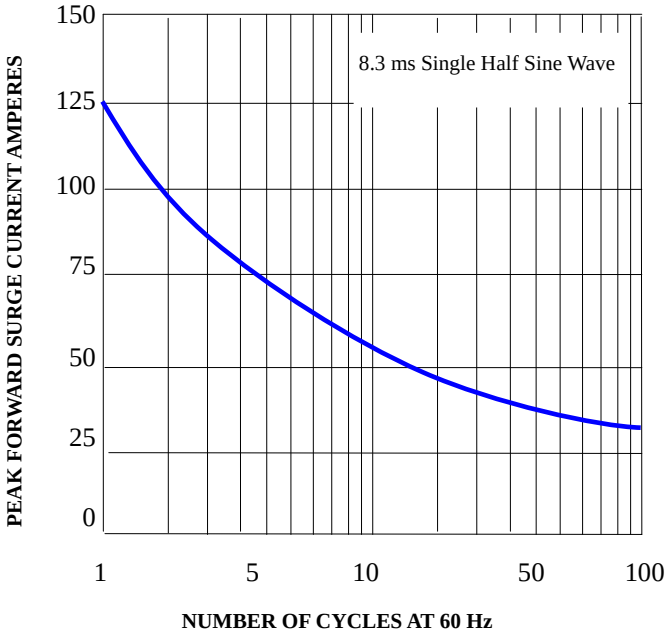


FIG. 3- TYPICAL REVERSE CHARACTERISTICS

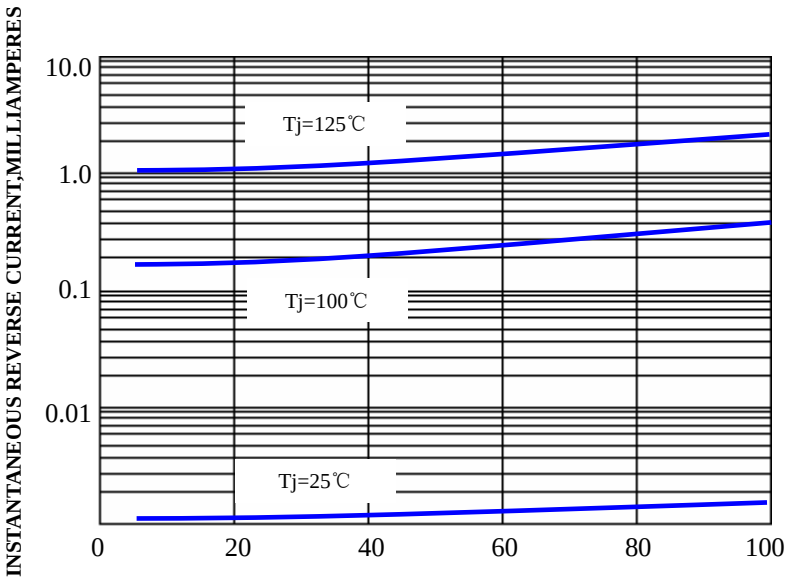
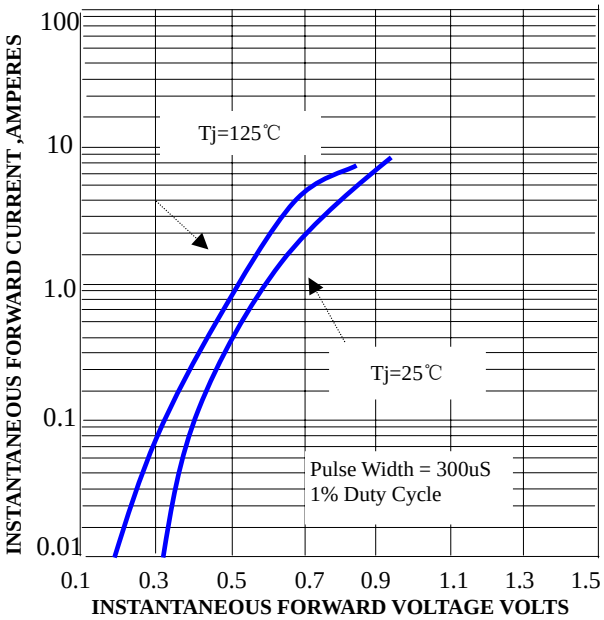
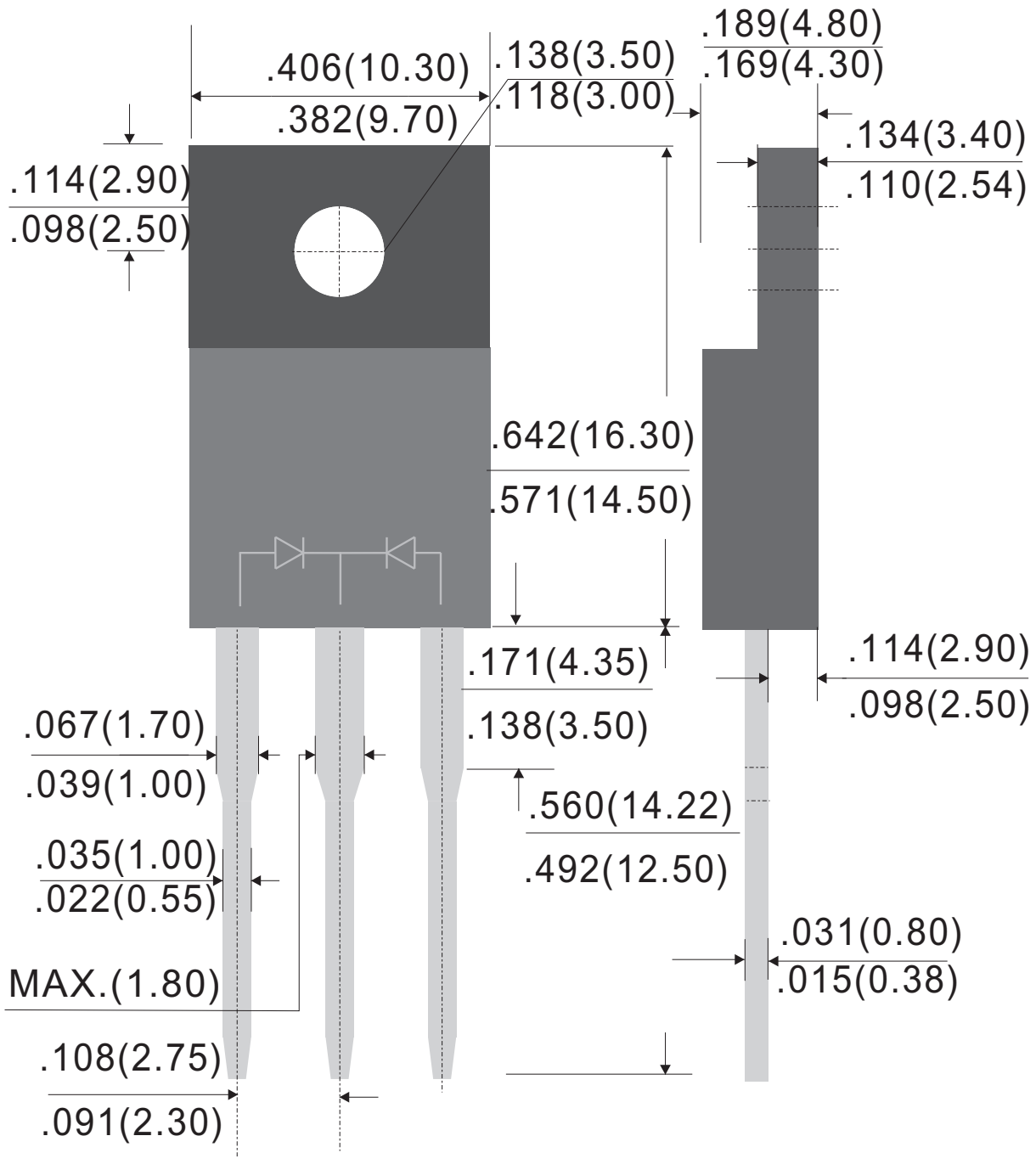


FIG. 4- TYPICAL INSTANTANEOUS FORWARD CHARCTERISTICS



Outline Drawing — ITO-220



Dimensions in inches and (millimeters)

Rev.H

Ordering Information:

Device PN	Packing
MBR10U150FCT - $^{(1)}$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”, Halogen free product for packing code suffix "H" .