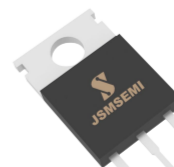
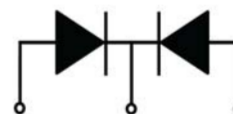


Features:

- ☐ Low power loss. high efficiency. High surge capacity
- ☐ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- ☐ Metal silicon junction, majority carrier conduction.
- ☐ High current Capability. low forward voltage drop.
- ☐ Guard ring for over voltage protection.



TO-220



1. Anode 2. Cathode 3. Anode

Absolute Maximum Ratings ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter		Symbol	MBR40150CT-JSM	Unit
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	150	V
Maximum RMS Voltage		V_{RMS}	105	
Maximum DC Blocking Voltage		$V_{R(DC)}$	150	
Maximum Average Forward Current		$I_{F(AV)}$	40	A
Peak Forward Surge Current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	300	
Maximum Forward Voltage at 20A per leg		V_F	0.92	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_j=25^{\circ}\text{C}$	I_R	0.05	mA
	$T_j=125^{\circ}\text{C}$		20	
Maximum Operating Junction Temperature		T_j	175	$^{\circ}\text{C}$
Storage Temperature		T_{stg}	-65~+175	
Typical Thermal Resistance		$R_{\theta JC}$	1.3	$^{\circ}\text{C/W}$

Typical Characteristics

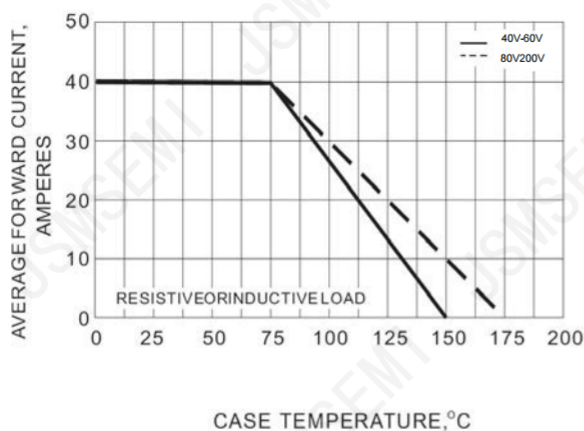


Fig.1 FORWARD CURRENT DERATING CURVE

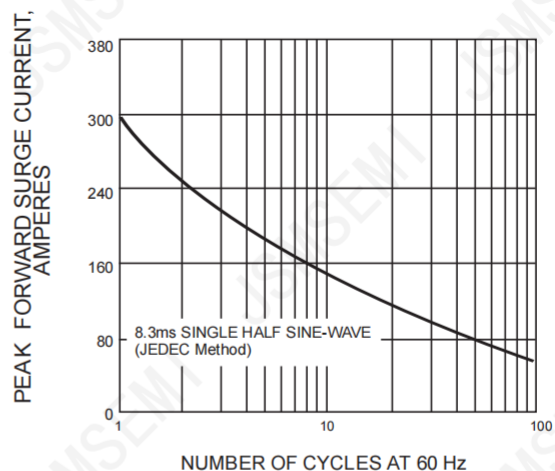


Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

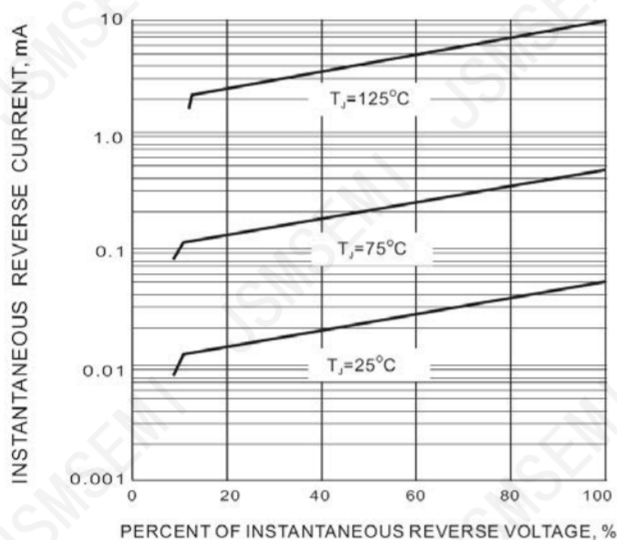


Fig 3. TYPICAL REVERSE CHARACTERISTIC

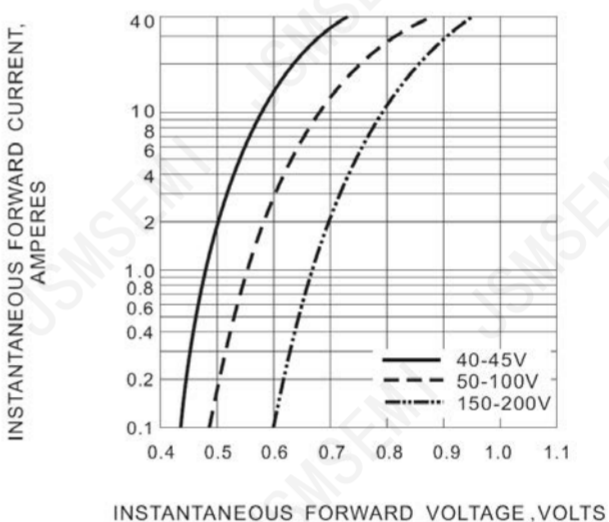
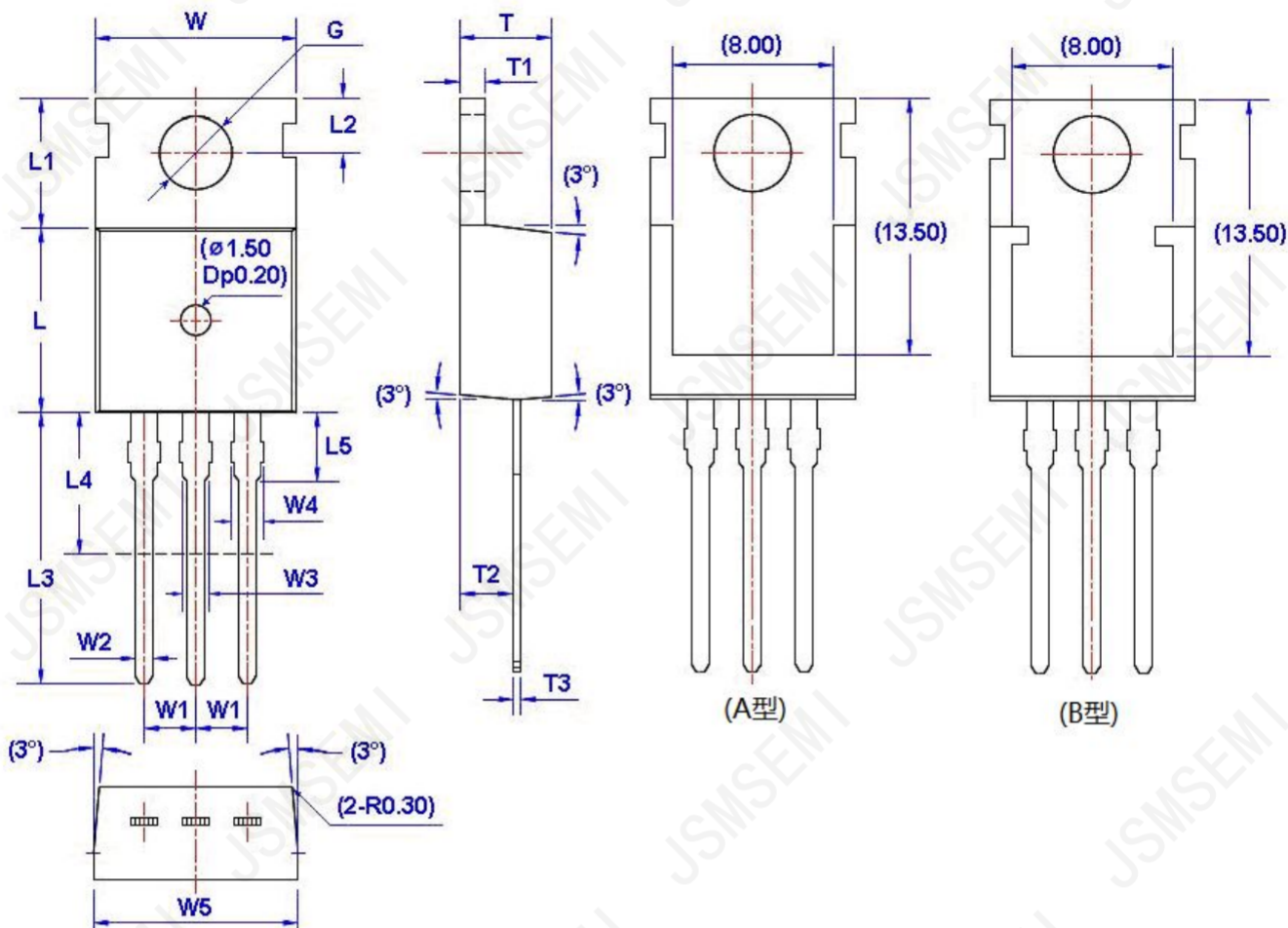


Fig 4. TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

Package Information

TO-220



Unit: mm

Symbol	Size		Symbol	Size		Symbol	Size		Symbol	Size	
	Min	Max		Min	Max		Min	Max		Min	Max
W	9.66	10.28	W5	9.80	10.20	L4**	6.20	6.60	T3	0.45	0.60
W1	2.54 (TYP)		L	9.00	9.40	L5	2.79	3.30	G(Φ)	3.50	3.70
W2	0.70	0.95	L1	6.40	6.80	T	4.30	4.70			
W3	1.17	1.37	L2	2.70	2.90	T1	1.15	1.40			
W4*	1.32	1.72	L3	12.70	14.27	T2	2.20	2.60			

Revision History

Rev.	Change	Date
V1.0	Initial version	2/23/2024

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