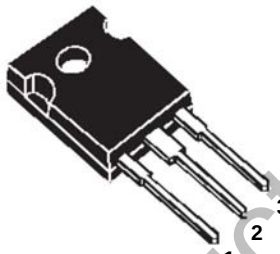
MBR3040SPT-MBR30200SPT

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.

RoHS COMPLIANT

TO-247S



1.Anode 2.Cathode 3. Anode

Absolute Maximum Ratings (Ta=25℃ unless otherwise noted)

Parameter	Symbol	MBR 3040 SPT	MBR 3045 SPT	MBR 3050 SPT	MBR 3060 SPT	MBR 3080 SPT	MBR 3090 SPT	MBR 30100 SPT	MBR 30150 SPT	MBR 30200 SPT	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	V_{RMS}	28	31.5	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	$V_{R(DC)}$	40	45	50	60	80	90	100	150	200	V
Maximum Average Forward Current	$I_{F(AV)}$	30									A
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	275									A
Maximum Forward Voltage at 15A per leg	V_F	0.68		0.72		0.82			0.92		V
Maximum DC Reverse Current at Rated DC Blocking Voltage Tj=25℃	I_R	0.1									mA
Maximum DC Reverse Current at Rated DC Blocking Voltage Tj=125℃	I_R	20									mA
Maximum Operating Junction Temperature	T_j	150				175					℃
Storage Temperature	T_{stg}	-55~+150				-65~+175					℃
Typical Thermal Resistance	$R_{\theta JC}$	1.4									℃/W

Typical Characteristics

RATING AND CHARACTERISTIC CURVES

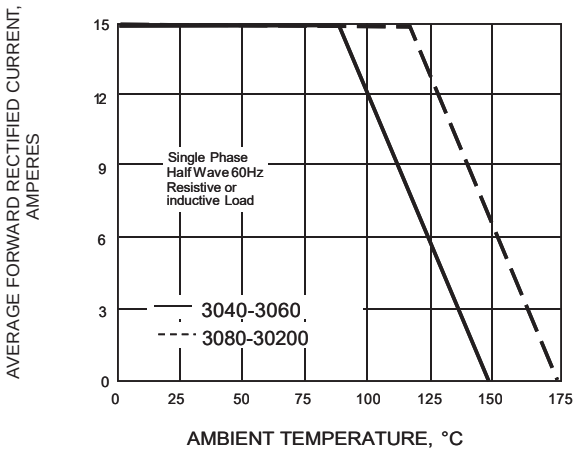


Fig.1 FORWARD CURRENT ERATING CURVE

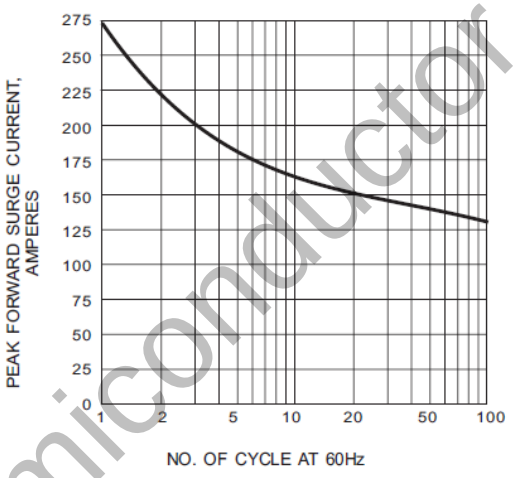


Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

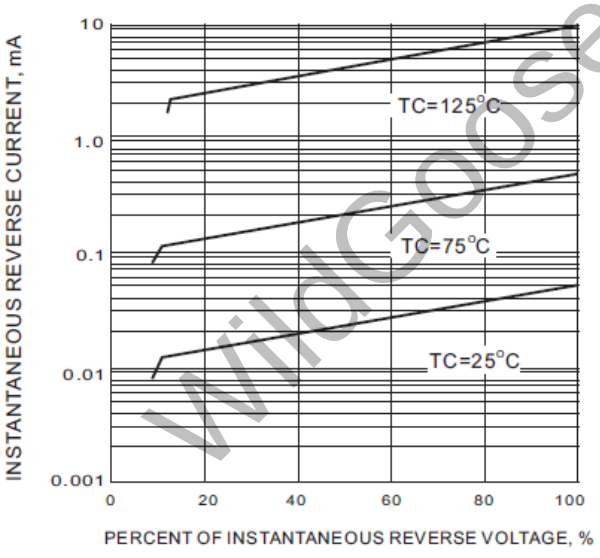


Fig.3 TYPICALREVERSE CHARACTERISTIC

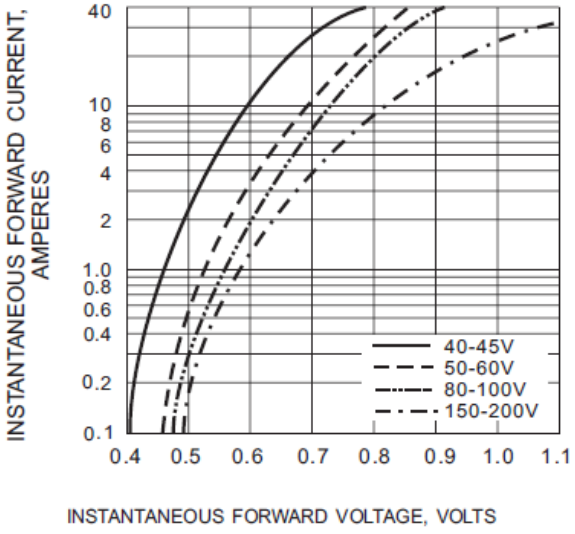


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

Package Dimension

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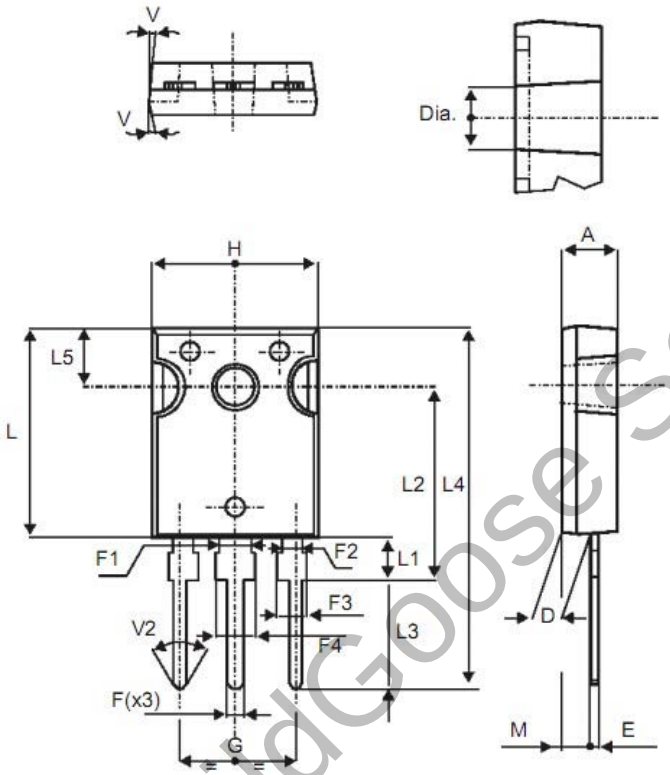

REF.	DIMENSIONS					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.85		5.15	0.191		0.203
D	2.20		2.60	0.086		0.102
E	0.40		0.80	0.015		0.031
F	1.00		1.40	0.039		0.055
F1		3.00			0.118	
F2		2.00			0.078	
F3	2.00		2.40	0.078		0.094
F4	3.00		3.40	0.118		0.133
G		10.90			0.429	
H	15.45		15.75	0.608		0.620
L	19.85		20.15	0.781		0.793
L1	3.70		4.30	0.145		0.169
L2		18.50			0.728	
L3	14.20		14.80	0.559		0.582
L4		34.60			1.362	
L5		5.50			0.216	
M	2.00		3.00	0.078		0.118
V		5°			5°	
V2		60°			60°	
Dia.	3.55		3.65	0.139		0.143