



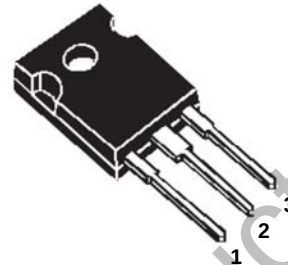
MBR4040SPT-MBR40200SPT

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-247S



1. Anode 2. Cathode 3. Anode

Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	MBR 4040 SPT	MBR 4045 SPT	MBR 4050 SPT	MBR 4060 SPT	MBR 4080 SPT	MBR 4090 SPT	MBR 40100 SPT	MBR 40150 SPT	MBR 40200 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	
Maximum DC Blocking Voltage	V _{R(DC)}	40	45	50	60	80	90	100	150	200	
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}	275									
Maximum Forward Voltage at 15A per leg	V _F	0.68	0.72		0.85			0.95			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _J =25℃	I _R	0.1								mA
	T _J =125℃		20								
Maximum Operating Junction Temperature	T _J	150				175					℃
Storage Temperature	T _{stg}	-55~+150				-65~+175					
Typical Thermal Resistance	R _{θJC}	1.4									℃/W

Typical Characteristics

RATING AND CHARACTERISTIC CURVES

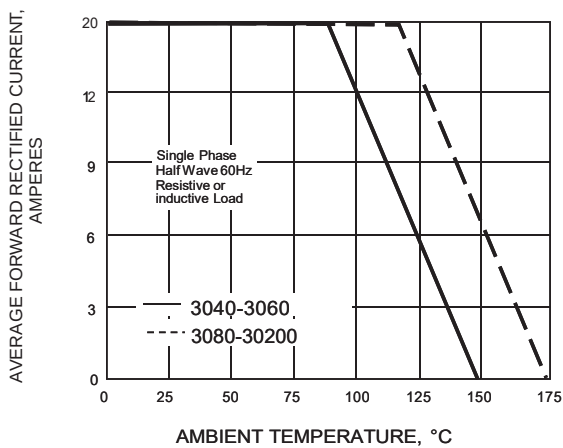


Fig.1 FORWARD CURRENT RATING CURVE

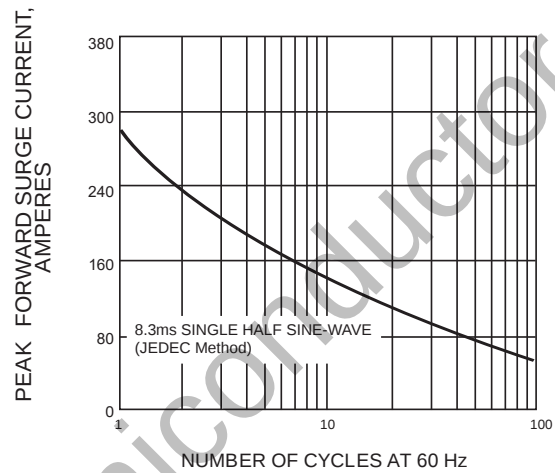


Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

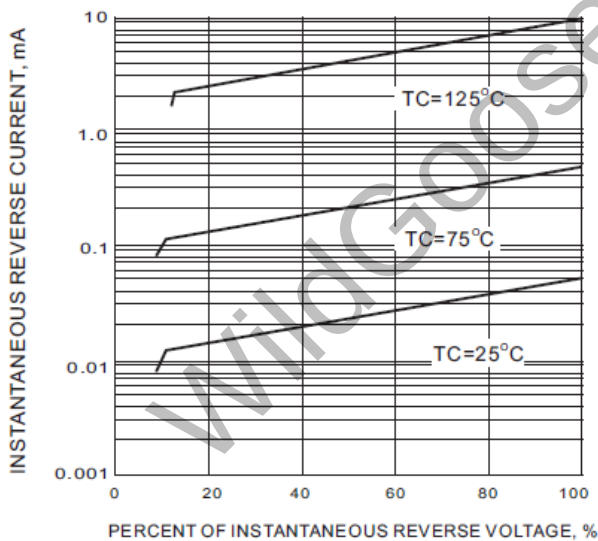


Fig.3 TYPICAL REVERSE CHARACTERISTIC

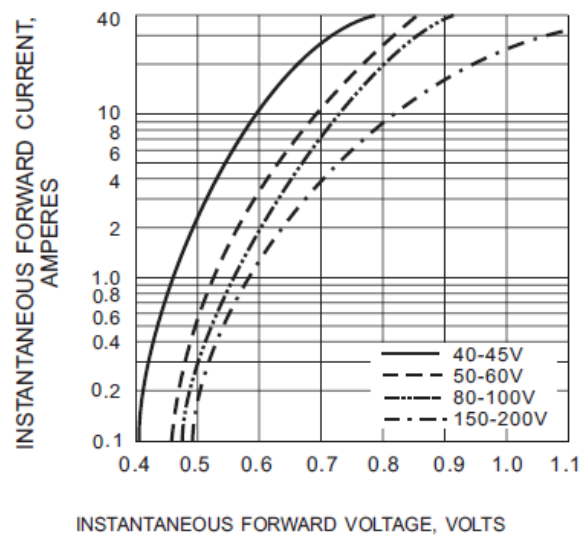
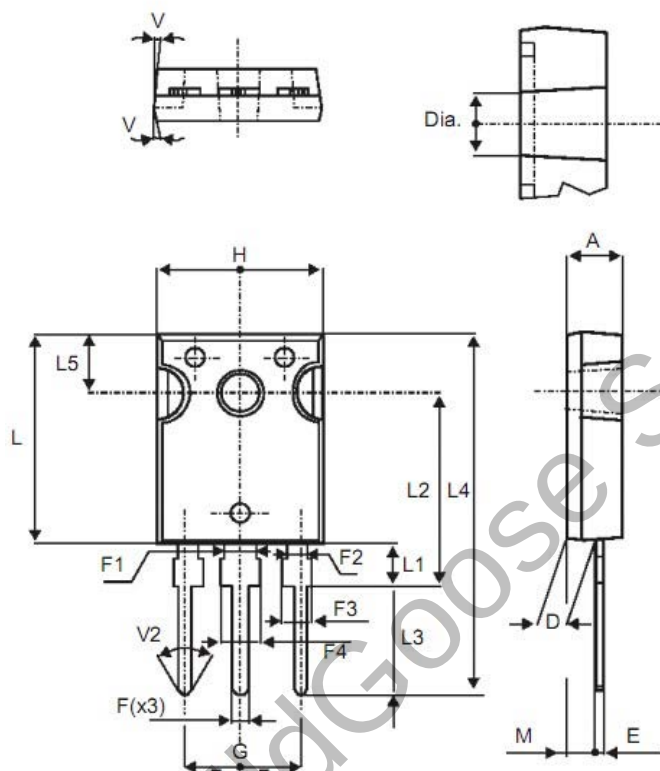


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

Package Dimension

TO-247S



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