

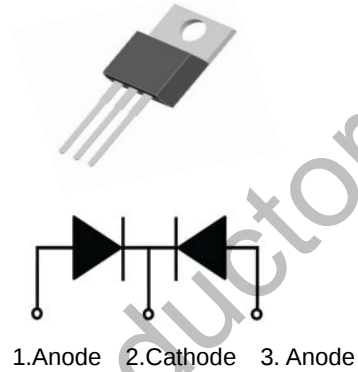


MBR2040SCT-MBR20200SCT

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



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

PARAMETER		Symbol	MBR 2040 SCT	MBR 2045 SCT	MBR 2050 SCT	MBR 2060 SCT	MBR 2080 SCT	MBR 2090 SCT	MBR 20100 SCT	MBR 20150 SCT	MBR 20200 SCT	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)}	20									A
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	175									A
Maximum Forward Voltage at 10A per leg		V _F	0.65		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									mA
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

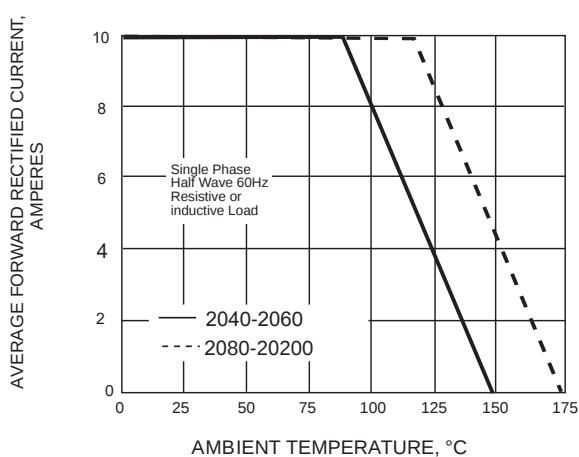


Fig.1 FORWARD CURRENT ERATING CURVE

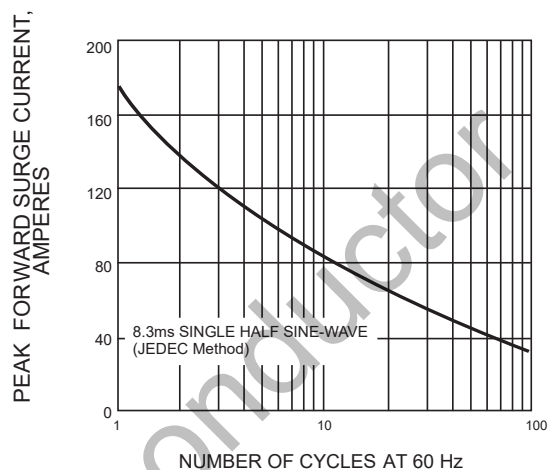


Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

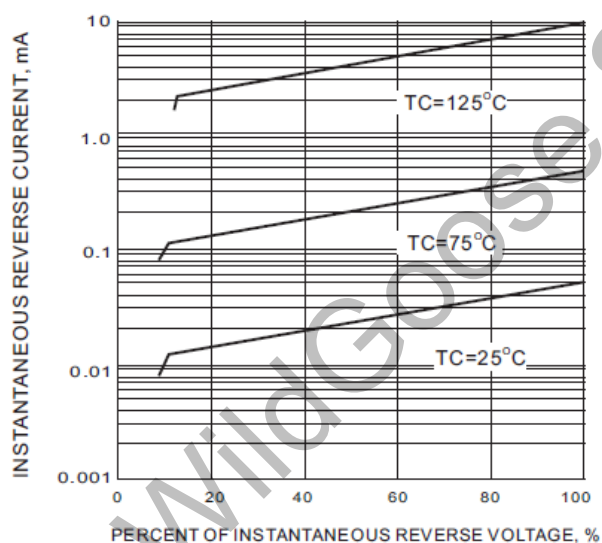


Fig.3 TYPICAL REVERSE CHARACTERISTIC

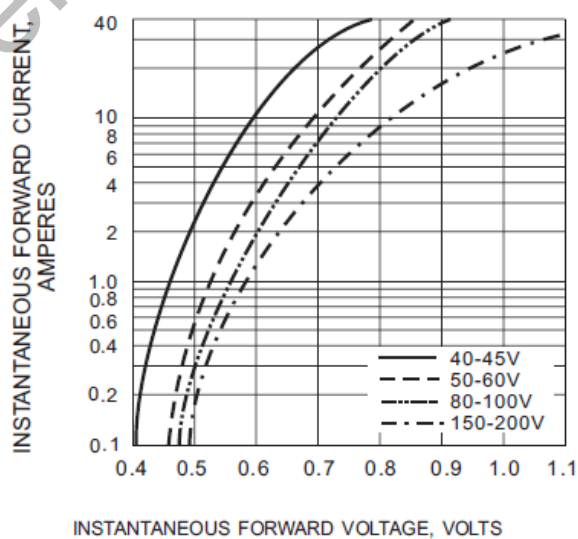


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

Package Dimension

TO-220

UNIT: mm

SYMBOL	min	nom	max	SYMBOL	min	nom	max
A	4.00		4.80	E	9.70		10.70
B	1.15		1.45	e		2.54	
B1	0.90		1.40	F	1.10		1.40
b1	0.65		0.95	L	12.50		14.50
c	0.30		0.50	L1	2.90	3.40	3.90
D	14.40		16.40	Q	2.50		3.10
D1	5.90		6.90	Q1	2.00		3.00
				φ P	3.60		4.00

