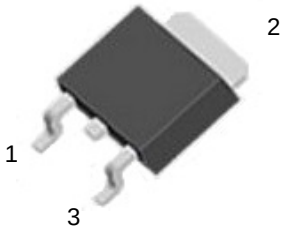
MBRD1040CT-MBRD10200CT

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-252





1.Anode 2.Cathode 3. Anode

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

Parameter		Symbol	MBRD 1040 CT	MBRD 1045 CT	MBRD 1050 CT	MBRD 1060 CT	MBRD 1080 CT	MBRD 1090 CT	MBRD 10100 CT	MBRD 10150 CT	MBRD 10200 CT	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		$I_{F(AV)}$	10									A
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	150									
Maximum Forward Voltage at 5A per leg		V_F	0.65		0.72		0.85			0.92		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	Tj=25℃	I_R	0.1									mA
	Tj=125℃		20									
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

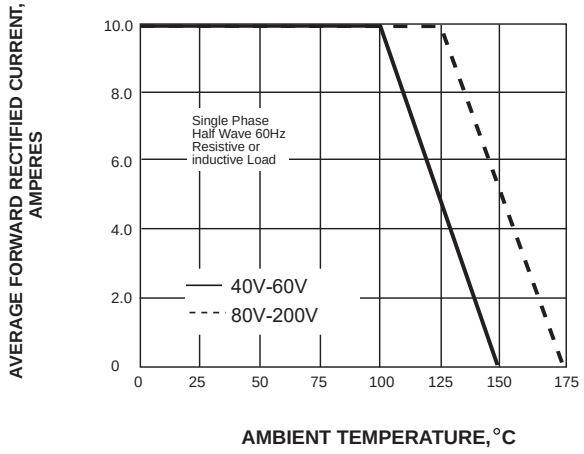


Fig.1 FORWARD CURRENT ERATING CURVE

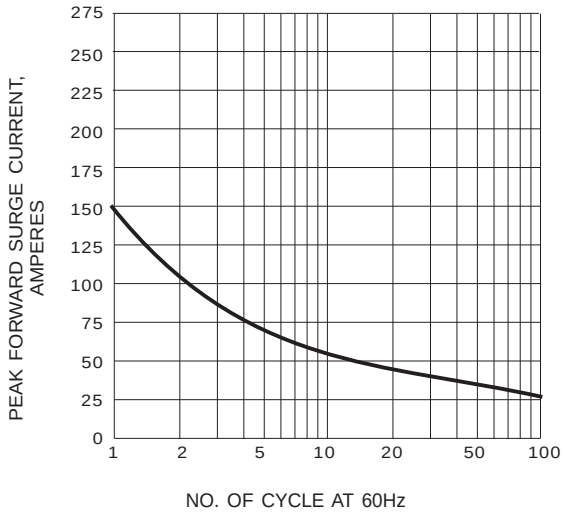


Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

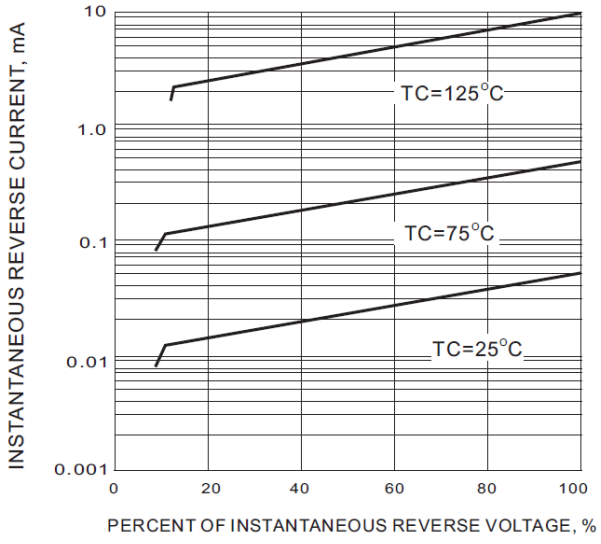


Fig.3 TYPICALREVERSE CHARACTERISTIC

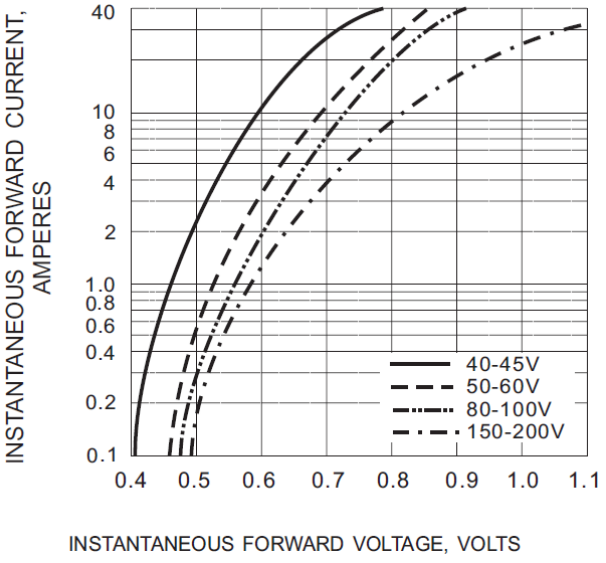
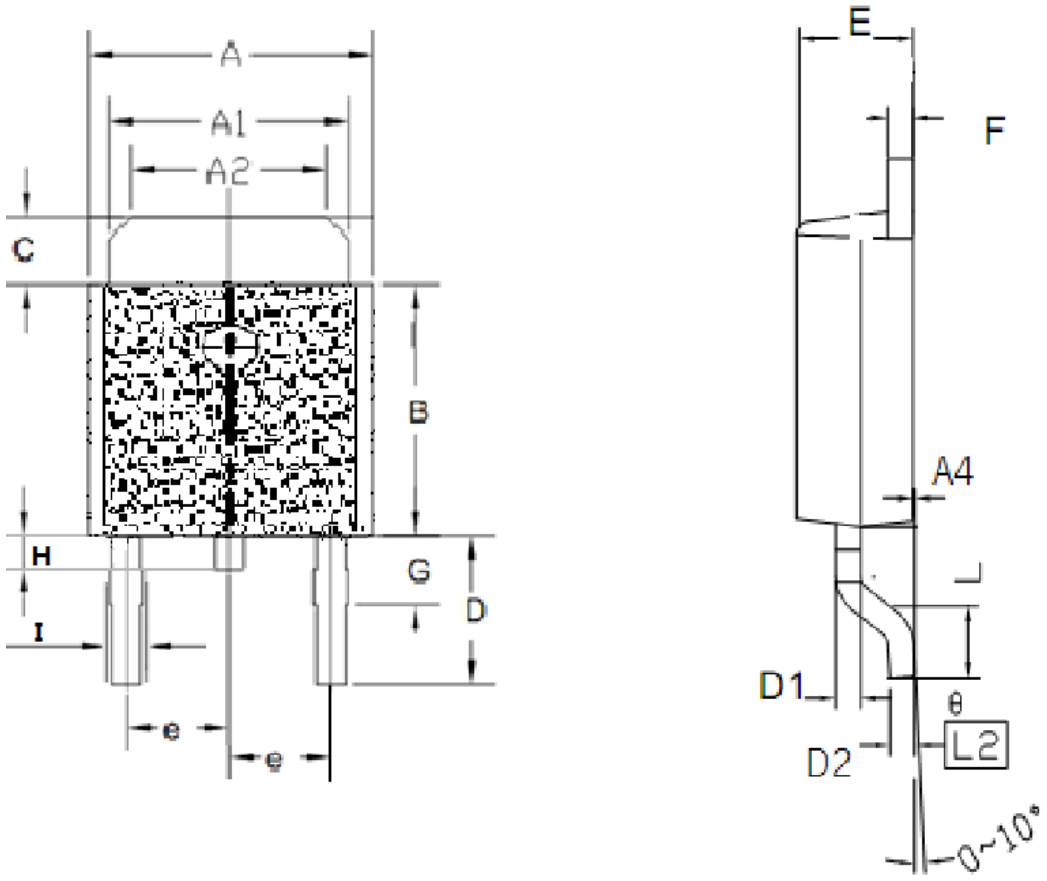


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

Package Dimension

TO-252



UNIT：mm

Symbol	Min	Max	Symbol	Min	Max
A	6.40	6.60	**D**	2.90	3.10
A1	5.20	5.40	**D1**	0.45	0.55
A2	4.40	4.60	**D2**	0.45	0.55
A3	4.40	4.60	**e**	2.30	
A4	0.00	0.15	**E**	2.20	2.40
A5	4.65	4.95	**F**	0.49	0.59
B	6.00	6.20	**G**	1.70	
B1	1.57	1.77	**L**	1.40	1.60
C	0.90	0.96	**θ（度）**	0.00	10.00
I	0.60	0.90	**H**	0.49	0.52