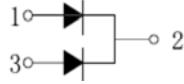
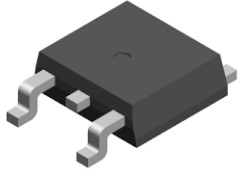




MBR20xxxCD SERIES



Schottky Barrier Rectifiers



D-PAK(TO-252)

Primary Characteristics

I_F	20	A
V_{RRM}	40~200	V
I_{FSM}	150	A
V_F	0.7, 0.8, 0.85, 0.92	V
T_J max	150, 175	°C

Features

- Low Power Loss, High Efficiency
- High Current Capability
- For Use in Low Voltage, High Frequency Inverters Free Wheeling, and Polarity Protection Applications

Mechanical Data

- Case : D-PAK(TO-252) molded plastic
- Terminals : solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : As marked

Ordering Information

Part No.	Remark	Package	Packing
MBR20xxxCD	General	D-PAK	3000 / Tape & Reel
MBR20xxxCD-H	Halogen Free		

Maximum Ratings (TA=25°C unless otherwise noted)

Parameter	Symbol	MBR 2040 CD	MBR 2045 CD	MBR 2050 CD	MBR 2060 CD	MBR 2080 CD	MBR 2090 CD	MBR 20100 CD	MBR 20150 CD	MBR 20200 CD	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_{DC}	40	45	50	60	80	90	100	150	200	V
Maximum average forward rectified current (Total) (Per Leg)	$I_{F(AV)}$	20 10									A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	150									A
Maximum Forward Voltage at 10A (per leg)	V_F	0.70	0.80		0.85			0.92			V
Maximum DC Reverse Current at $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=125^\circ\text{C}$	I_R	0.05 20									mA
Typical Thermal Resistance	$R_{\theta JC}$	3									°C/W
Typical Junction Capacitance (NOTE1)	C_J	700	500		400			300	250		pF
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-50 to +150							-55 to +175		°C
Marking Code		MBR 2040 CD	MBR 2045 CD	MBR 2050 CD	MBR 2060 CD	MBR 2080 CD	MBR 2090 CD	MBR 20100 CD	MBR 20150 CD	MBR 20200 CD	

NOTES :

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC



Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

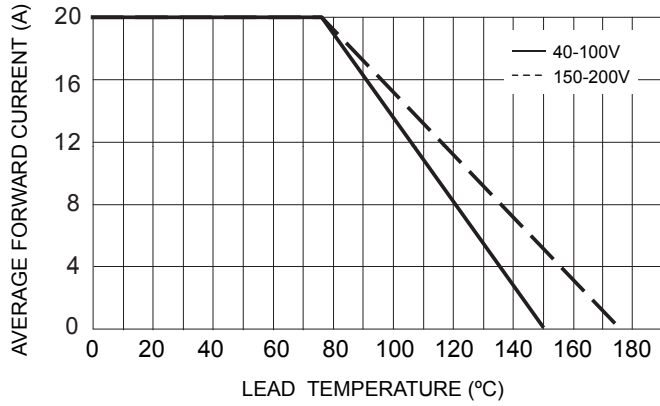


FIG. 2-Typical Forward Characteristics

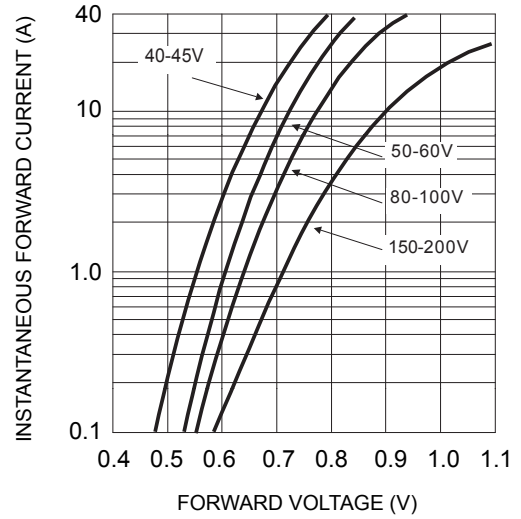


FIG. 3-Maximum Non-Repetitive Forward Surge Current

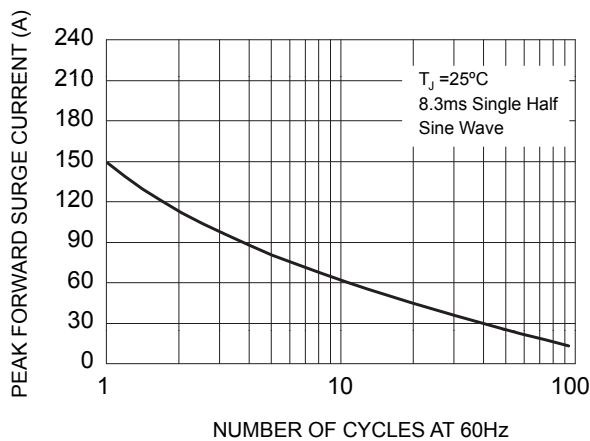
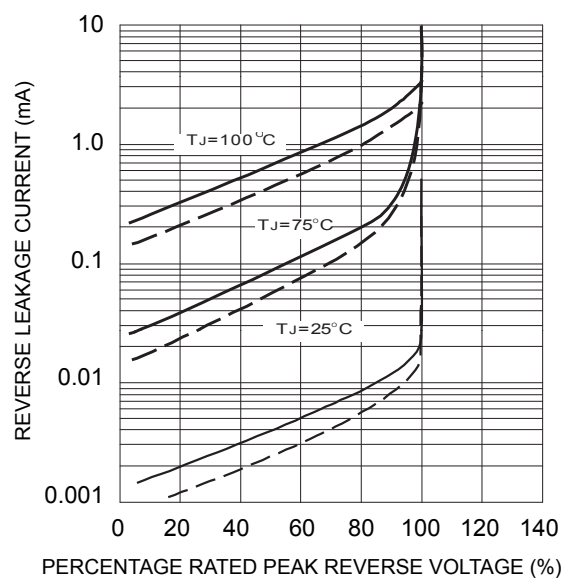
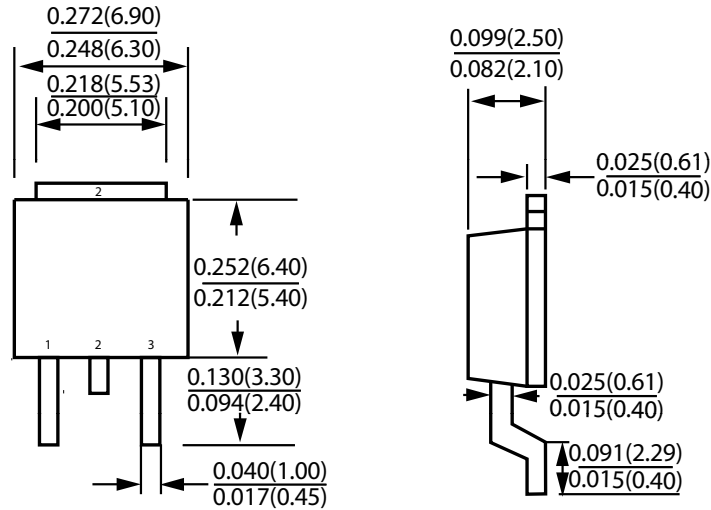


FIG. 4-Typical Reverse Characteristics





Package Outline Dimensions

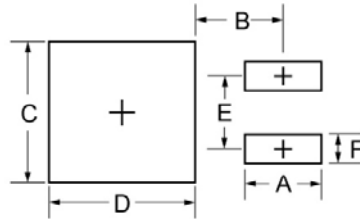


D-PAK(TO-252)

Dimensions in inches and (millimeters)

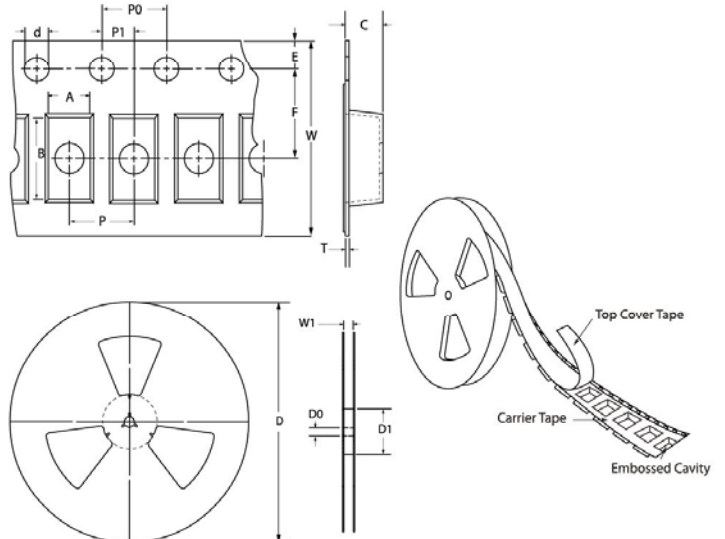
Suggested Pad Layout

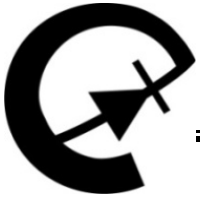
Outline Symbol	D-PAK (TO-252) (mm)
A	3.00
B	3.70
C	6.00
D	6.50
E	4.60
F	1.40



Tape & Reel Specification

Item	Symbol	D-PAK (TO-252) (mm)
Carrier width	A	6.96±0.10
Carrier length	B	10.5±0.10
Carrier depth	C	2.79±0.10
Sprocket hole	d	1.55±0.10
Reel outside diameter	D	330±2
Reel inner diameter	D1	90 (min)
Feed hole width	D2	13 (min)
Sprocket hole position	E	1.75±0.10
Punch hole position	F	7.5±0.10
Punch hole pitch	P	8.00±0.10
Sprocket hole pitch	P0	4.00±0.2
Embossment center	P1	2.00 ±0.10
Tape width	W	16.00+0.3/-0.1
Reel width	W1	16.80±0.4





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