



Schottky Barrier Rectifiers

Reverse Voltage - 45 V

Forward Current - 20 A

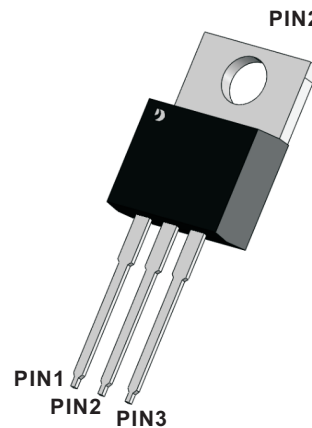
Features

- High current capability
- Low forward voltage drop
- Low power loss, high efficiency
- High surge capability
- High temperature soldering guaranteed

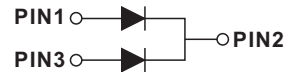
Mechanical data

- Case: TO-220ABW
- Approx Weight: 1.87g (0.066oz)
- RoHS compliant
- Case Material: “Green” molding compound, UL flammability classification 94V-0, “Halogen-free”.

TO-220ABW



RoHS
COMPLIANT



Maximum Ratings And Electrical Characteristics

Ratings At 25°C Ambient Temperature Unless Otherwise Specified

Parameter	Symbols	MBR2045CD	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	45	V
Maximum RMS voltage	V_{RMS}	32	V
Maximum DC Blocking Voltage	V_{DC}	45	V
Average Rectified Forward Current Per leg Per device	I_O	10 20	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)(Per leg)	I_{FSM}	150	A
Operating Junction Temperature Range	T_j	-55 ~ +150	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

Parameter	Symbols	Test Conditions	Min	Typ	Max	Units
Breakdown voltage per leg	V_{BR}	$I_R=0.1mA$	45			V
Instantaneous forward voltage per leg	V_F	$I_F=10A, T_J=25^{\circ}C$		0.55	0.60	V
Reverse current per leg	I_R	$V_R=45V, T_J=25^{\circ}C$			100	μA



Fig.1 Typical Forward Current Derating Curve

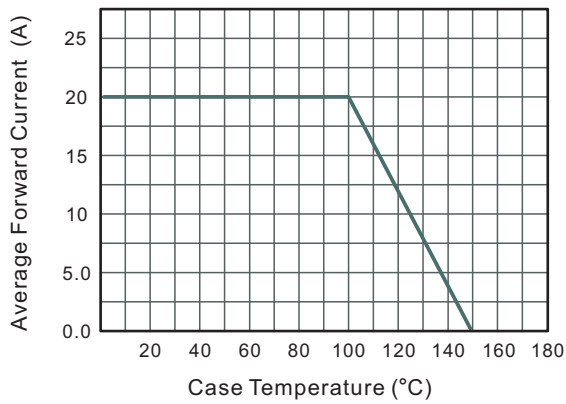


Fig.2 Typical Reverse Characteristics

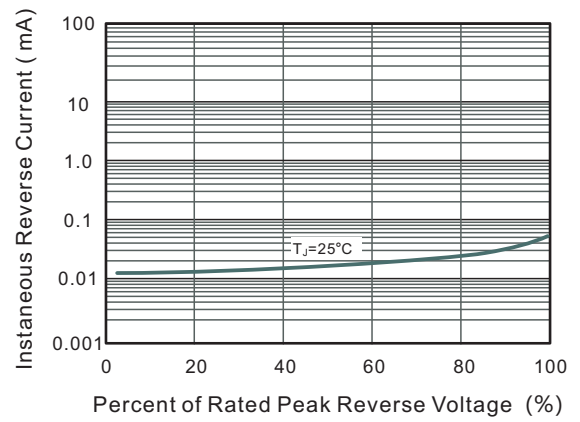


Fig.3 Typical Forward Characteristic(per leg)

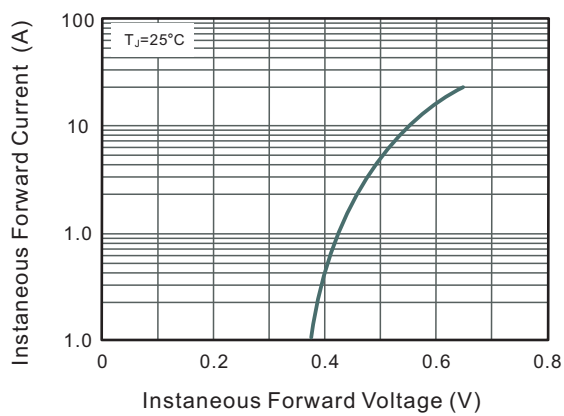
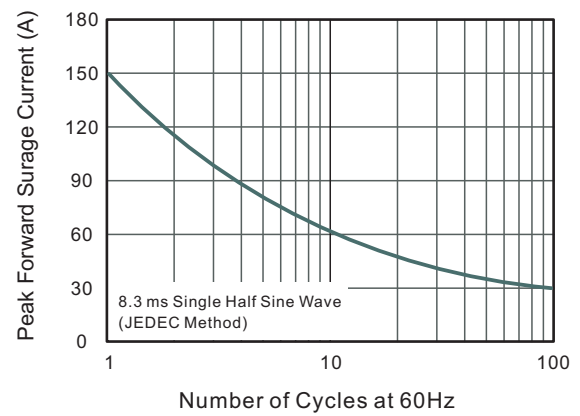


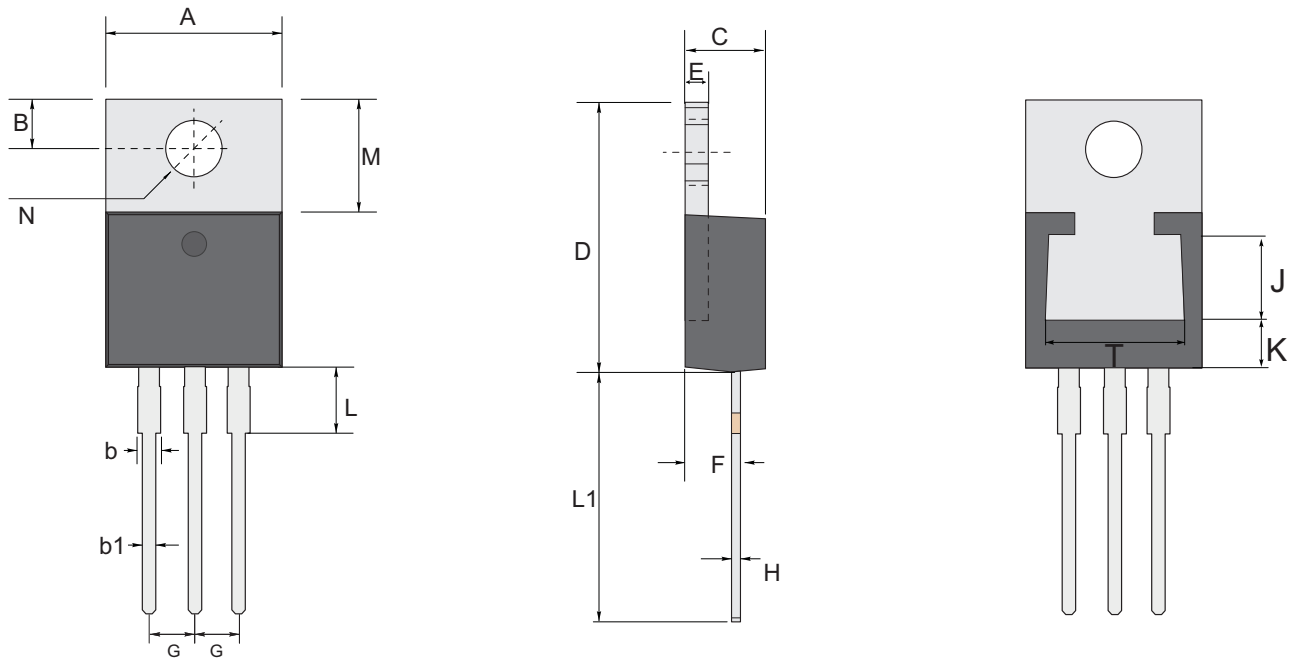
Fig.4 Maximum Non-Repetitive Peak Forward Surge Current





Package Outline
Through Hole Package ; 3 leads

TO-220ABW



TO-220ABW mechanical data

UNIT		A	B	b	b1	C	D	E	F	G	H	L	L1	M	N	J	T	K
mm	max	10.45	2.94	1.77	0.94	4.76	16.0	1.40	3.37	2.54 typ.	0.64	4.20	14.79	6.39 typ.	3.84 typ.	4.65 ref.	7.7 ref.	3.22 ref.
	typ	9.94	2.74	1.27	0.81	4.57	15.09	1.27	3.07		0.38	3.89	13.18					
	min	9.85	2.54	1.14	0.62	4.42	14.6	1.14	2.77		0.35	2.80	13.08					
mil	max	411	116	70	37	187	630	55	133	100 typ.	25	165	582	252 typ.	151 typ.	183 ref.	303 ref.	127 ref.
	typ	391	108	50	32	180	594	50	121		15	153	519					
	min	388	100	45	24	174	575	45	109		14	110	515					

Marking

Type number	Marking code
MBR2045CD	MBR2045CD



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