



SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 100 V

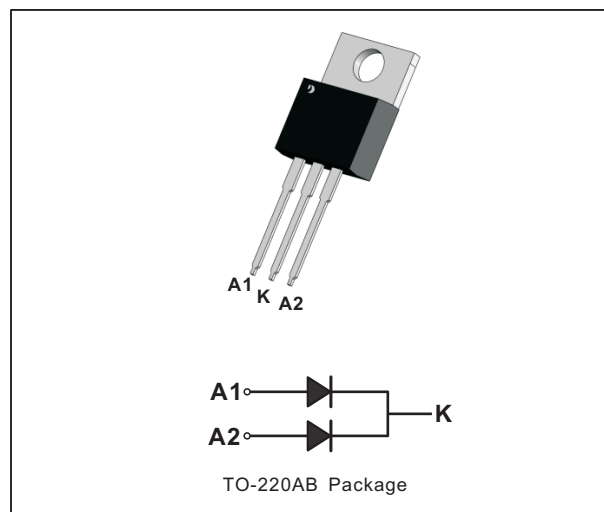
Forward Current - 20 A

FEATURES

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

Mechanical data

- Case: TO-220AB
- Approx. Weight: 1.9g (0.067oz)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

CHARACTERISTICS	SYMBOL	MBRT20100CD	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	70	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current per leg per device	$I_{F(AV)}$	10 20	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	230	A
Max Instantaneous Forward Voltage at 10 A Per leg	V_F	0.64	V
Maximum DC Reverse Current at Rated DC Reverse Voltage $T_a = 25^\circ\text{C}$ $T_a = 125^\circ\text{C}$	I_R	0.2 50	mA
Typical Thermal Resistance ⁽¹⁾	$R_{\theta JA}$	45	°C/W
Typical Junction Capacitance ⁽²⁾	C_j	1200	pF
Operating Junction Temperature Range	T_j	-55 ~ +150	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

(1) P.C.B. mounted with 10cmX10cmX1mm copper pad areas.

(2) Measured at 1 MHz and applied reverse voltage of 4 V D.C



Fig.1 Typical Forward Current Derating Curve

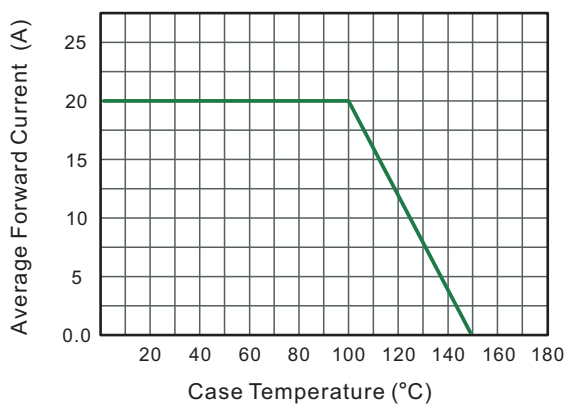


Fig.2 Typical Reverse Characteristics

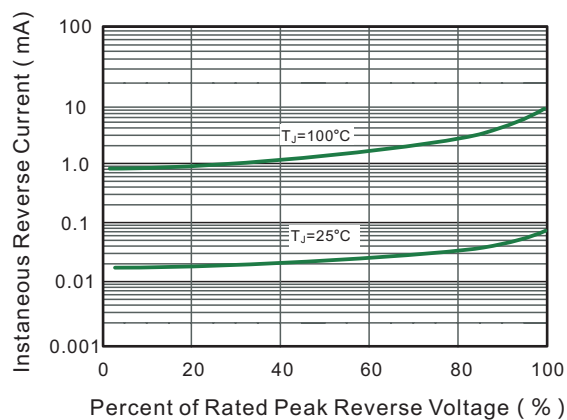


Fig.3 Typical Forward Characteristic(per leg)

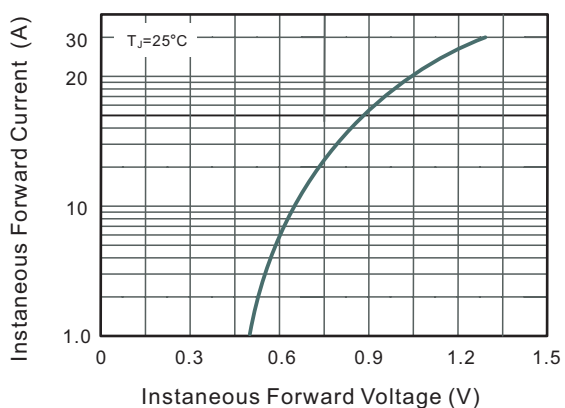


Fig.4 Typical Junction Capacitance

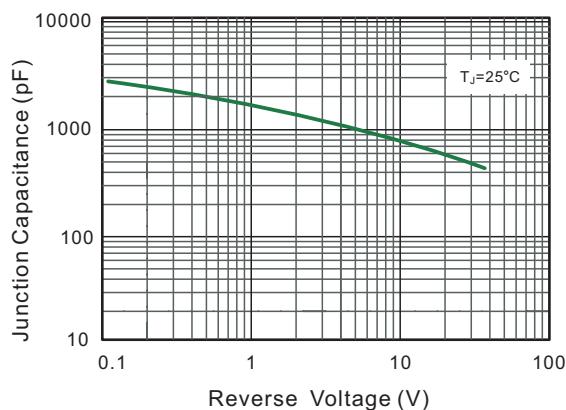


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

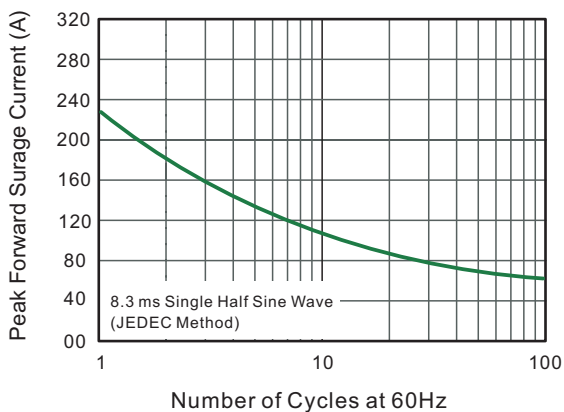
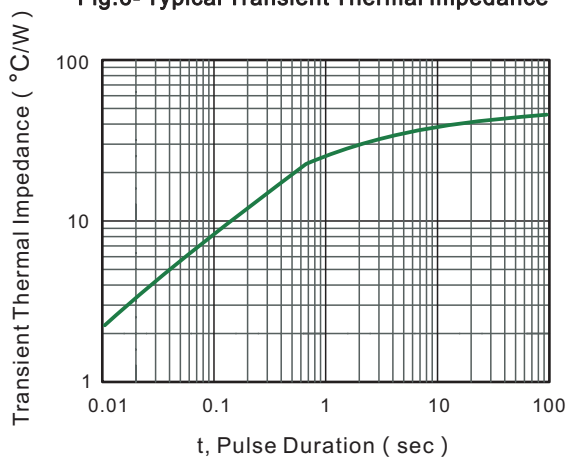


Fig.6- Typical Transient Thermal Impedance

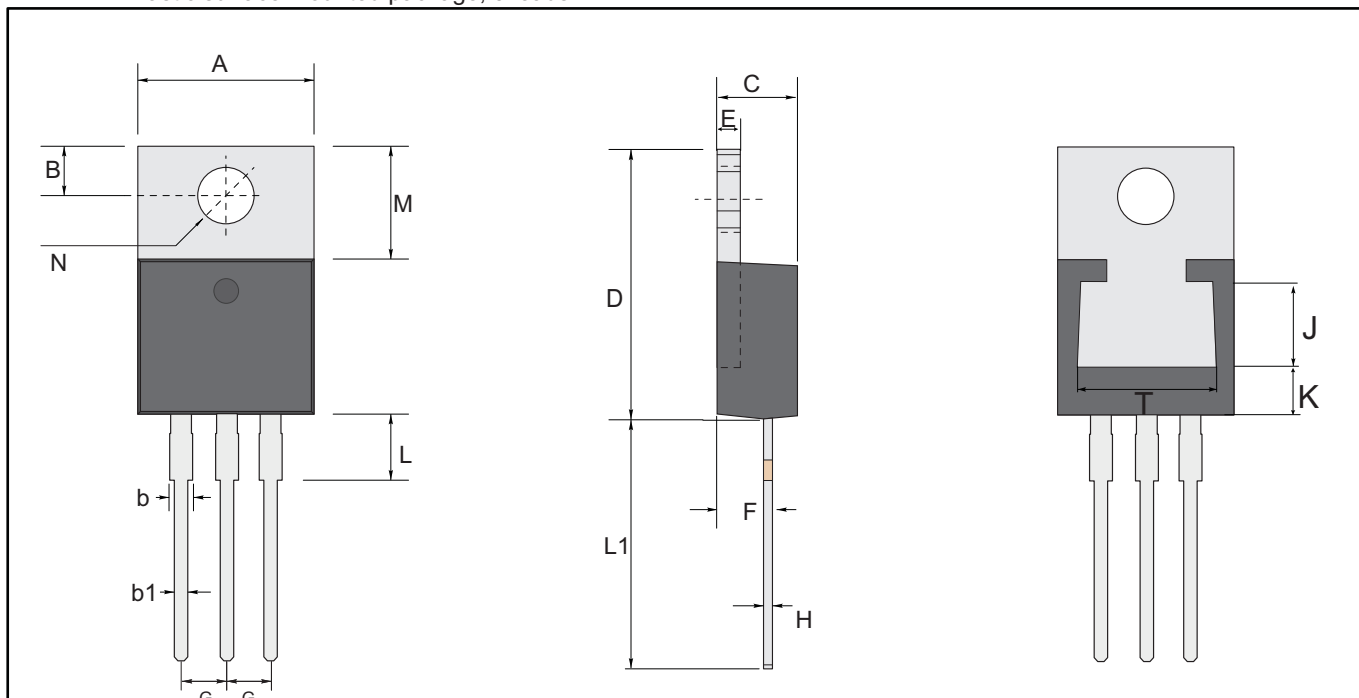




PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

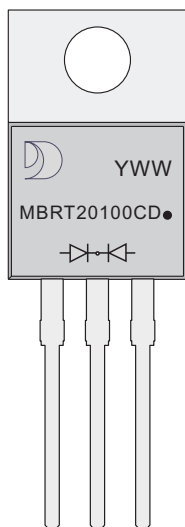
TO-220AB



TO-220AB 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	2.80	2.54 TYPICAL	0.64	4.2	14.79	6.6 TYPICAL	3.84 TYPICAL	4.65 ref.	7.70 ref.	3.22 ref.
	typ	9.94	2.74	1.27	0.81	4.53	15.09	1.27	2.69		0.38	3.89	13.18					
	min	9.85	2.54	1.14	0.62	4.42	14.6	1.14	2.20		0.35	2.8	13.08					
mil	max	411	116	70	40	187	630	55	110	100 TYPICAL	25	165	582	259 TYPICAL	151 TYPICAL	1.83 ref.	303 ref.	126 ref.
	typ	391	107	50	31	178	594	50	105		15	153	519					
	min	388	100	45	24	174	575	45	87		14	110	515					

MARKING DIAGRAM



YWW: Date Code
Y: Years(0~9)
WW: Week
MBRT20100CD: Product name
(NOTE: The weekly code is based on the actual number of weeks in the calendar year.)



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