

MBRL10100CT

Schottky Barrier Rectifier

Voltage

100 V

Current

10 A

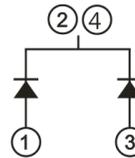
Features

- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case : TO-220AB Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 1.8904 grams

TO-220AB



Maximum Ratings and Thermal Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive 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 Current	I _{F(AV)}	per device 10	A
		per diode 5	
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load Per Diode	I _{FSM}	150	A
Typical Junction Capacitance Measured at 1 MHZ And Applied V _R = 4 V	C _J	148	pF
Typical Thermal Resistance ^(Note 1)	R _{θJA}	52	°C/W
	R _{θJC}	1.5	
	R _{θJL}	2.1	
Operating Junction Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°C

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Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage Per Diode	V_F	$I_F = 1\text{ A}, T_J = 25^\circ\text{C}$	-	0.58	0.63	V
		$I_F = 3\text{ A}, T_J = 25^\circ\text{C}$	-	0.71	0.76	
		$I_F = 5\text{ A}, T_J = 25^\circ\text{C}$	-	0.75	0.8	
		$I_F = 1\text{ A}, T_J = 125^\circ\text{C}$	-	0.46	0.51	
		$I_F = 3\text{ A}, T_J = 125^\circ\text{C}$	-	0.57	0.62	
		$I_F = 5\text{ A}, T_J = 125^\circ\text{C}$	-	0.62	0.67	
Reverse Current Per Diode ^(Note 2)	I_R	$V_R = 80\text{ V}, T_J = 25^\circ\text{C}$	-	0.1	0.6	μA
		$V_R = 100\text{ V}, T_J = 25^\circ\text{C}$	-	0.2	50	
		$V_R = 100\text{ V}, T_J = 125^\circ\text{C}$	-	0.37	2.25	mA

NOTES :

1. Device mounted on a infinite heatsink.
2. Short duration pulse test used to minimize self-heating effect.

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TYPICAL CHARACTERISTIC CURVES

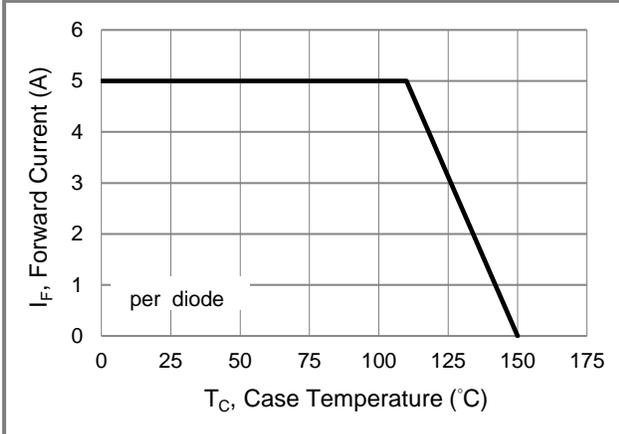


Fig.1 Forward Current Derating Curve

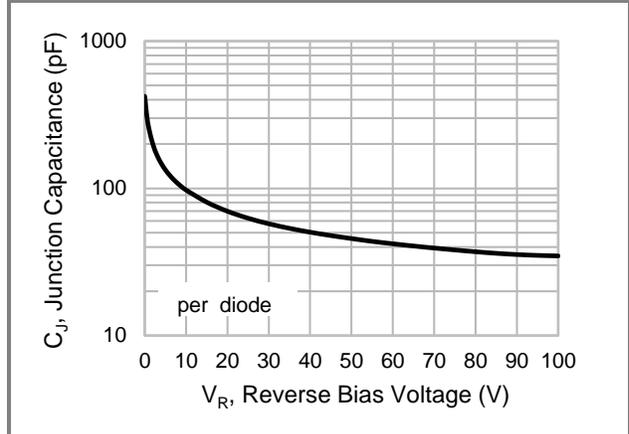


Fig.2 Typical Junction Capacitance

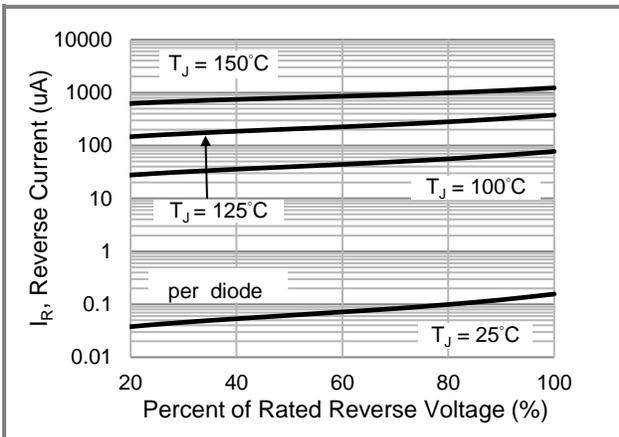


Fig.3 Typical Reverse Characteristics

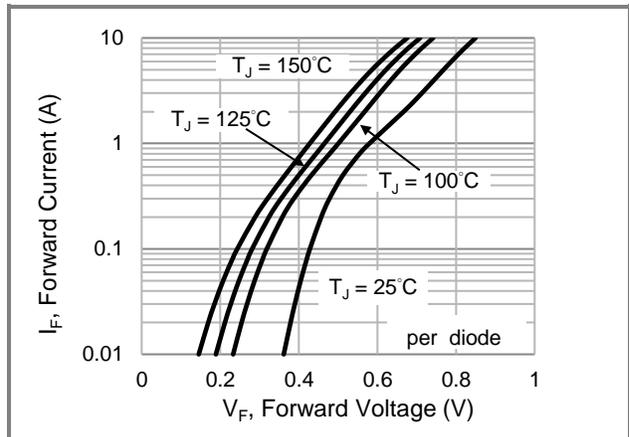


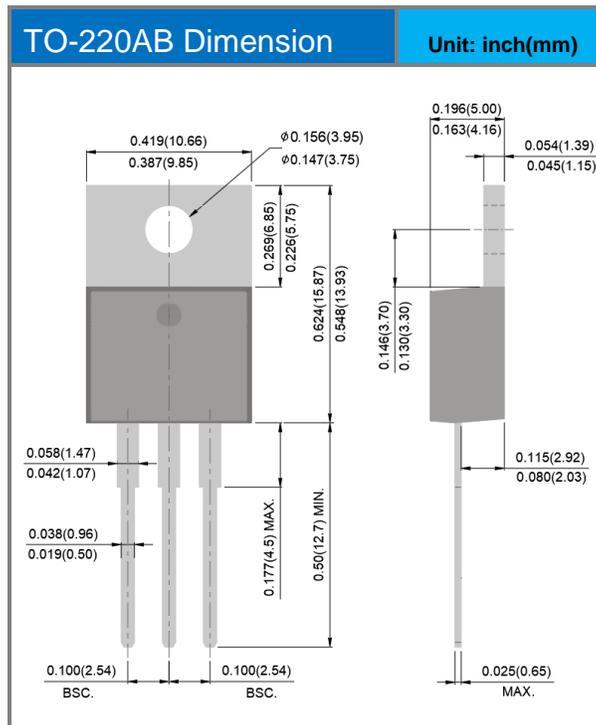
Fig.4 Typical Forward Characteristics

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
MBRL10100CT	TO-220AB	50pcs / Tube	MBRL10100CT

Packaging Information



MBRL10100CT

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