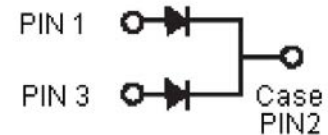


Schottky Diode



Features:

- Plastic material
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Guardring for over voltage protection
- High temperature soldering guaranteed: 260°C/10 seconds, 0.25 inch (6.35mm) from case.

Mechanical Data:

Cases	: JEDEC TO-220 moulded plastic
Terminals	: Leads solderable per MIL-STD-750, Method 2026
Polarity	: As marked
Mounting position	: Any
Mounting torque	: 5in. - lbs. Max.
Weight	: 0.08oz, 2.24g

Schottky Diode



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

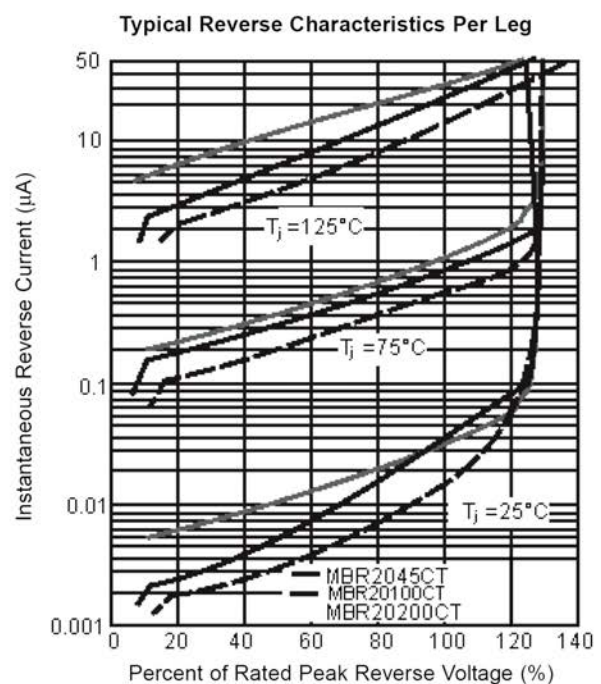
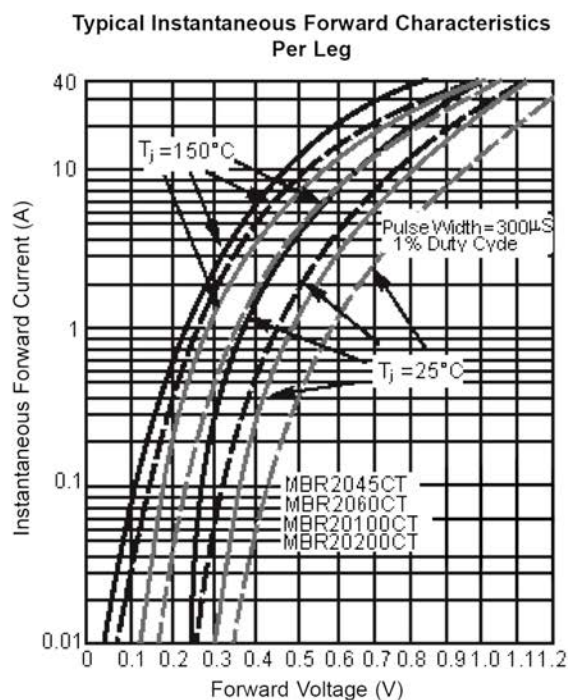
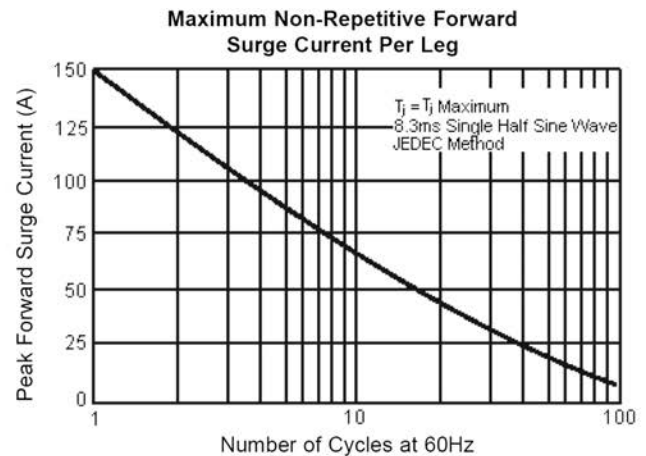
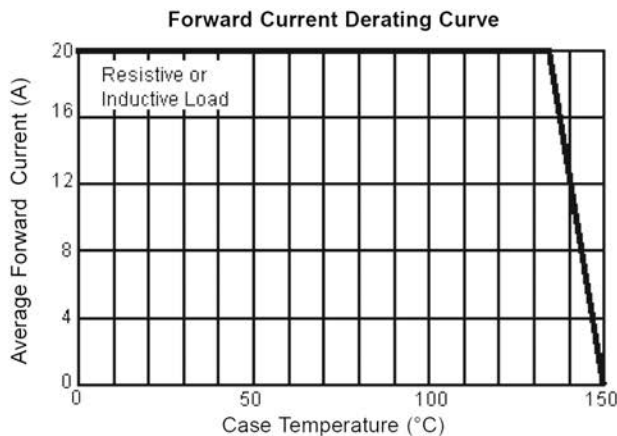
Type Number	Symbol	MBR 2045CT	MBR 20150CT	MBR 2060CT	MBR 20100CT	MBR 20200CT	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	45	50	60	100	200	V
Maximum RMS Voltage	V _{RMS}	31	35	42	70	140	
Maximum DC Blocking Voltage	V _{DC}	45	50	60	10	200	
Maximum Average Forward Rectified Current at TC = 135°C	I(AV)	20					A
Peak Repetitive Forward Current (Rated VR, Square Wave, 20KHz) at TC = 135°C	I _{FRM}	20					
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	150					
Peak Repetitive Reverse Surge Current (Note 1)	I _{RRM}	10	0.5			1.0	
Maximum Instantaneous Forward Voltage at (Note 2) I _F = 10A, T _C = 25°C I _F = 10A, T _C = 125°C I _F = 20A, T _C = 25°C I _F = 20A, T _C = 125°C	V _F	- 0.57 0.84 0.72	0.80 0.70 0.95 0.85		0.85 0.75 0.95 0.85	0.99 0.87 1.23 1.1	V
Maximum Instantaneous Reverse Current at TC = 25°C at Rated DC Blocking Voltage at TC = 125°C	I _R	0.1 15	0.15 150			1 50	μA μA
Voltage Rate of Change, (Rated VR)	dV/dt	10,000					V/μS
Typical Junction Capacitance	C _j	400	320				pF
Typical Thermal Resistance Per Leg (Note 3)	R _{θJC}	1			2		°C/W
Operating Junction Temperature Range	T _j	-65 to +150					°C
Storage Temperature Range	T _{STG}	-65 to +175					

- Notes: 1. 2μs Pulse Width, f = 1.0KHz
2. Pulse Test: 300μs Pulse Width, 1% Duty Cycle
3. Thermal Resistance from Junction to Case Per Leg, with Heatsink Size (4 × 6 × 0.25 inches) Al-Plate

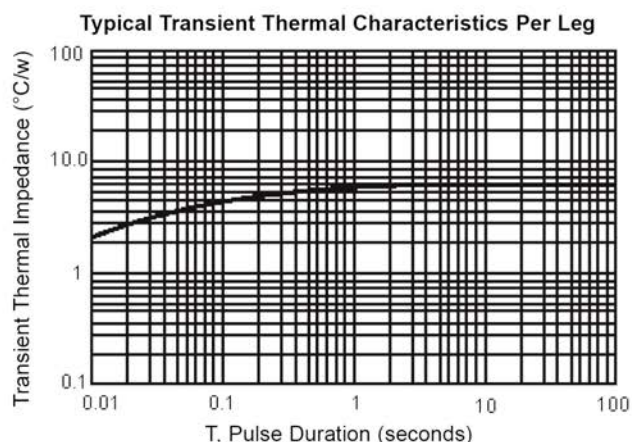
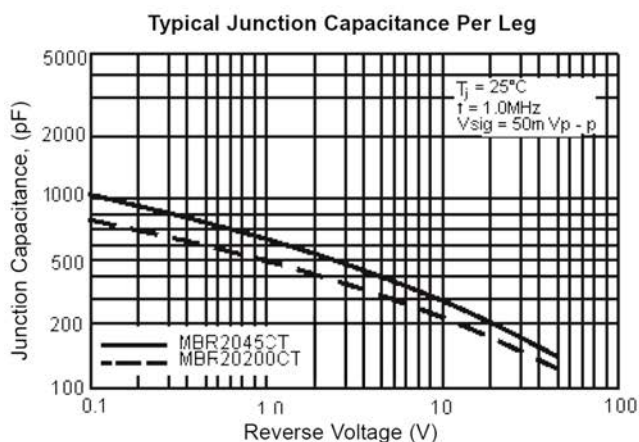
Schottky Diode



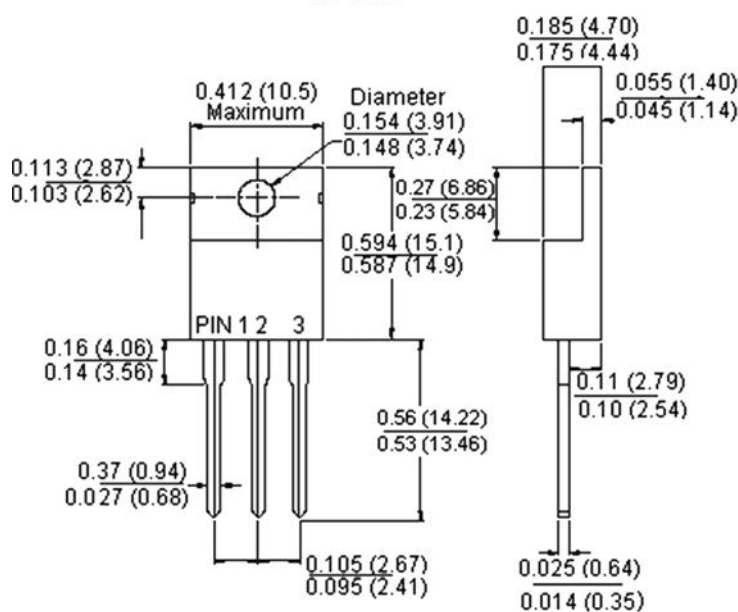
Ratings and Characteristic Curves (MBR20100CT, 20150CT, 20200CT, 2045CT, 2060CT)



Schottky Diode



TO-220



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Diode, Schottky, 20A, 100V	MBR20100CT
Diode, Schottky, 20A, 150V	MBR20150CT
Diode, Schottky, 20A, 200V	MBR20200CT
Diode, Schottky, 20A, 45V	MBR2045CT
Diode, Schottky, 20A, 60V	MBR2060CT

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