MBR10XXCT SERIES

SCHOTTKY BARRIER RECTIFIER

产品规格确认书

MBR1035CT THRU MBR10200CT

SCHOTTKY BARRIER RECTIFIER

康 比 電 子
HORNBY ELECTRONIC

REVERSE VOLTAGE: **35 to 200 VOLTS**

FORWARD CURRENT: **10.0 AMPERE**

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- Metal silicon junction, majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss, high efficiency
- For use in low voltage,high frequency inverters,free whelling,and polarity protection applications
- High temperature soldering guaranteed: 250°C/10 seconds, 0.25" (6.35mm) from case

MECHANICAL DATA

Case: Molded plastic, TO-220

Epoxy: UL 94V-O rate flame retardant

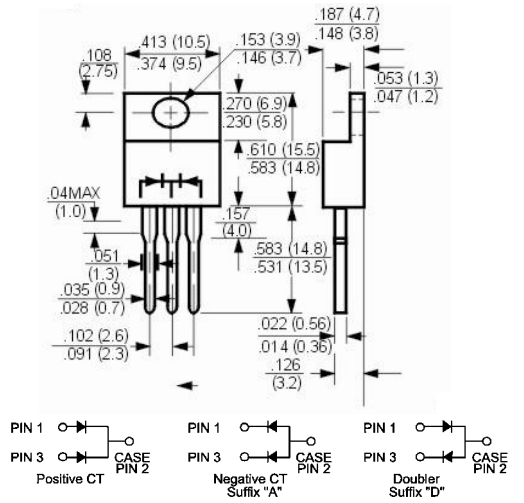
Terminals: Leads solderable per MIL-STD-202 method 208 guaranteed

Polarity: As marked

Mounting position: Any

Weight: 0.08ounce, 2.24gram

TO-220



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

	Symbols	MBR1035CT	MBR1045CT	MBR1050CT	MBR1060CT	MBR1080CT	MBR10100CT	MBR10150CT	MBR10200CT	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	35	45	50	60	80	100	150	200	**Volts**
Maximum RMS Voltage	V_{RMS}	24	31	35	42	56	70	105	140	**Volts**
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	80	100	150	200	**Volts**
Maximum Average Forward Rectified Current at T_C = 105°C	$I_{(AV)}$	10.0								**Amp**
Peak repetitive forward current at T_C = 105°C (rated VR, sq. wave, 20 KHz)	I_{FRM}	10.0								**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	125								**Amp**
Peak repetitive reverse current at tp = 2.0μs, 1KHz	I_{RRM}	1.0		0.5						**Amp**
Maximum Forward Voltage (Note 1) at I_F = 5.0A, T_C = 25°C	V_F	0.70		0.80		0.85		0.95		**Volts**
at I_F = 5.0A, T_C = 125°C		0.57		0.65		0.75		0.85		
at I_F = 10A, T_C = 25°C		0.80		0.90		0.95		0.98		
at I_F = 10A, T_C = 125°C		0.67		0.75		0.85		0.88		
Maximum Reverse Current at T_C=25℃	I_R	0.1								**mAmp**
at Rated DC Blocking Voltage T_C=125℃		15		10		2		5		
Typical Thermal Resistance	$R_{\theta JC}$	1.5								℃/W
Operating Temperature Range	T_J	-55 to +150								℃
Storage Temperature Range	Tstg	-55 to +150								℃

NOTES:

1- Pulse test: 300μs pulse width, 1% duty cycle

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RATINGS AND CHARACTERISTIC CURVES

FIG.1- FORWARD CURRENT DERATING CURVE

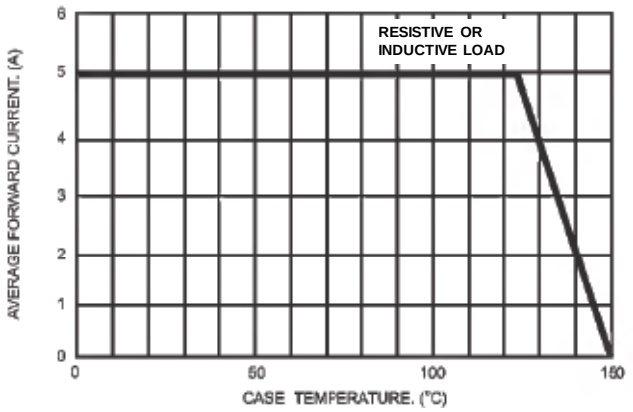

FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

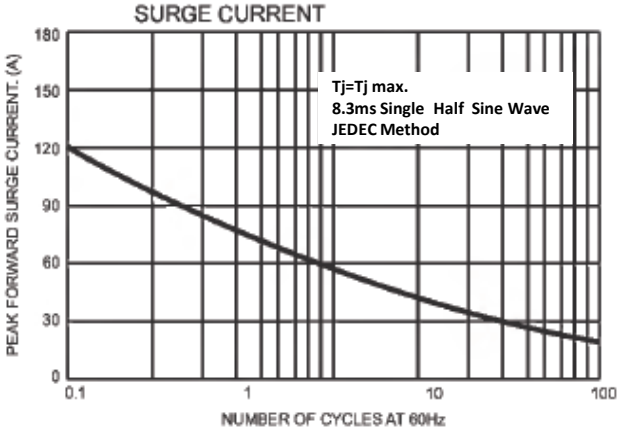

FIG.3- TYPICAL FORWARD CHARACTERISTICS

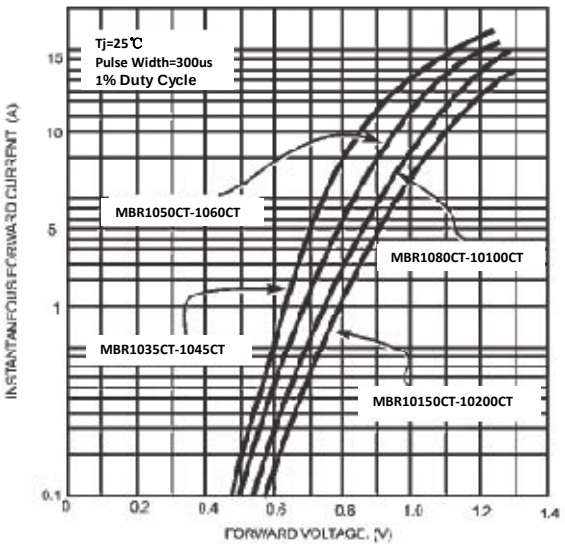

FIG.4- TYPICAL REVERSE CHARACTERISTICS

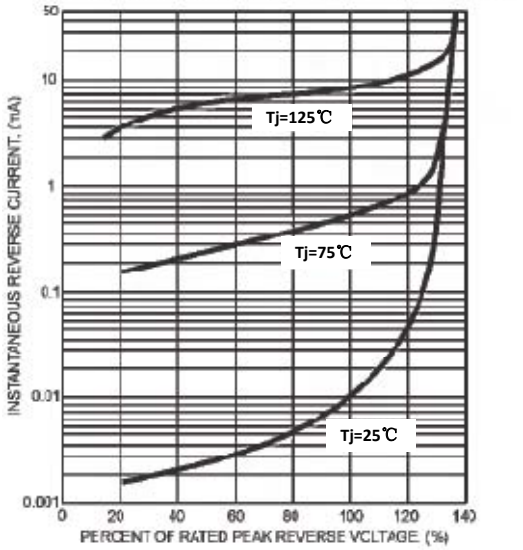

FIG.5- TYPICAL JUNCTION CAPACITANCE

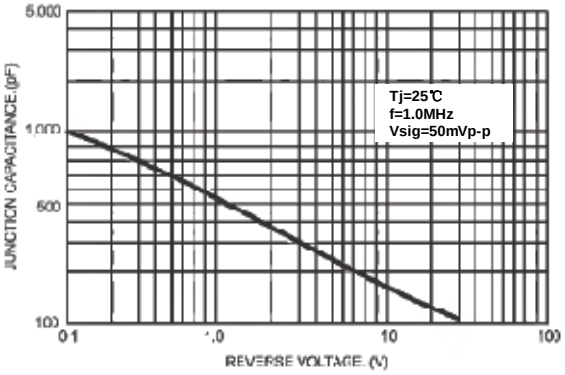

FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS PER LEG