

MBR2035CT THRU MBR20200CT

SCHOTTKY BARRIER RECTIFIER



康比電子
HORNBY ELECTRONIC

REVERSE VOLTAGE: 35 to 200 VOLTS

FORWARD CURRENT: 20.0 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

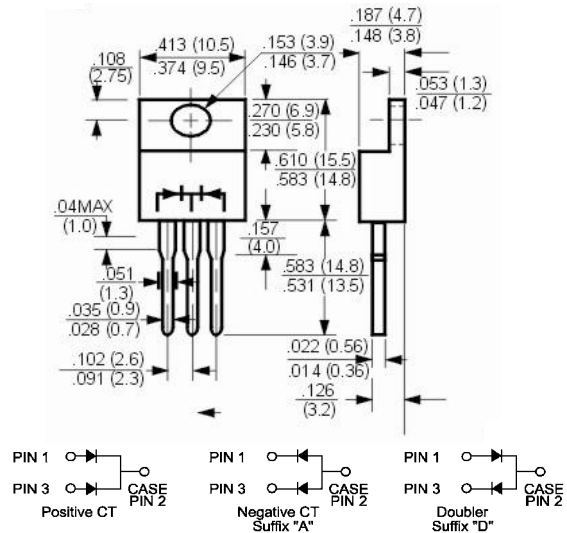
Terminals: Leads solderable per MIL-STD-202 method 208 guaranteed

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°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

	Symbols	MBR2035CT	MBR2045CT	MBR2050CT	MBR2060CT	MBR2080CT	MBR20100CT	MBR20150CT	MBR20200CT	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}	35	45	50	60	80	100	150	200	Volts
Maximum Average Forward Rectified Current at T _C = 135°C	I _(AV)	20.0								Amp
Peak repetitive forward current at T _C = 135°C (rated VR, sq. wave, 20 KHz)	I _{FRM}	20.0								Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	150								Amp
Peak repetitive reverse current at tp = 2.0μs, 1KHz	I _{RRM}	1.0		0.5						Amp
Maximum Forward Voltage (Note 1)	V _F	-		0.80		0.85		0.95		Volts
at I _F = 10A, T _C = 25°C		0.57		0.70		0.75		0.82		
at I _F = 10A, T _C = 125°C		0.84		0.95		0.95		1.23		
at I _F = 20A, T _C = 25°C		0.72		0.85		0.85		1.10		
Maximum Reverse Current at T _C =25°C	I _R	0.1		0.15				0.20		mAmp
at Rated DC Blocking Voltage T _C =125°C		15		10		5			1	
Typical Thermal Resistance	R _{θJC}	1.0				2				°C/W
Operating Temperature Range	T _J	-55 to +150								°C
Storage Temperature Range	T _{stg}	-55 to +150								°C

NOTES:

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

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RATINGS AND CHARACTERISTIC CURVES

FIG.1- FORWARD CURRENT DERATING CURVE

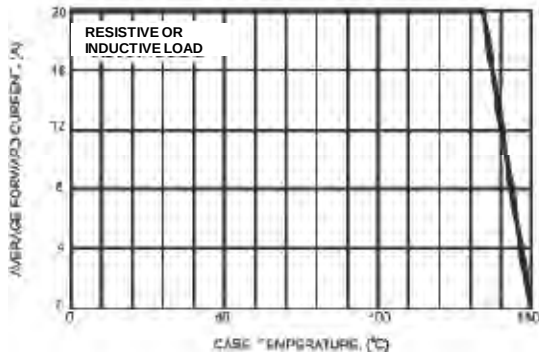


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

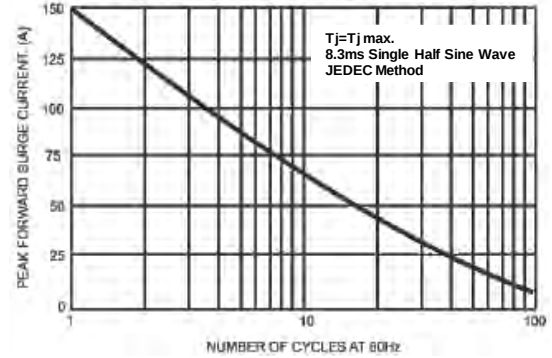


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

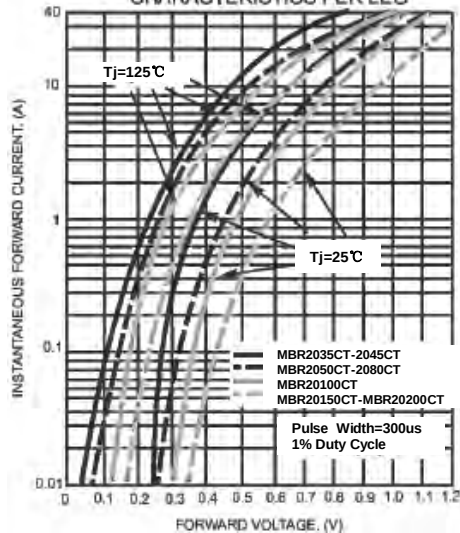


FIG.4- TYPICAL REVERSE CHARACTERISTIC PER LEG

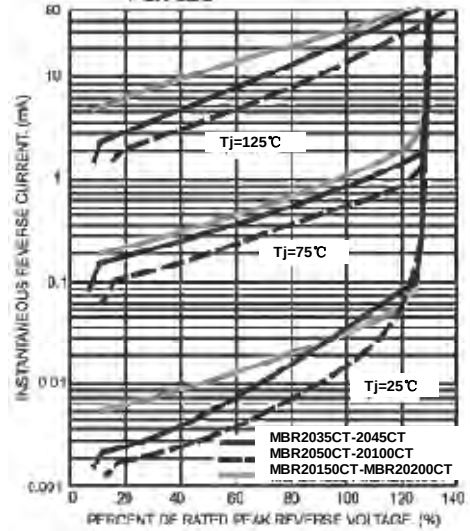


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

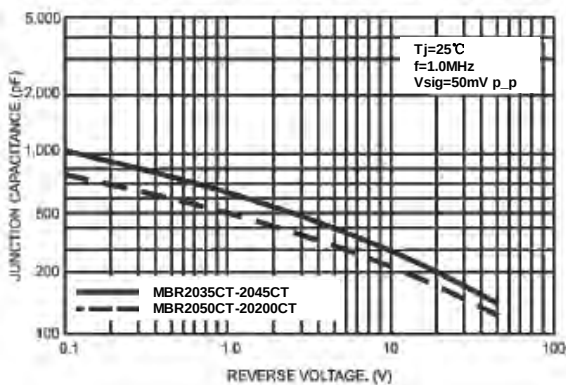


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

