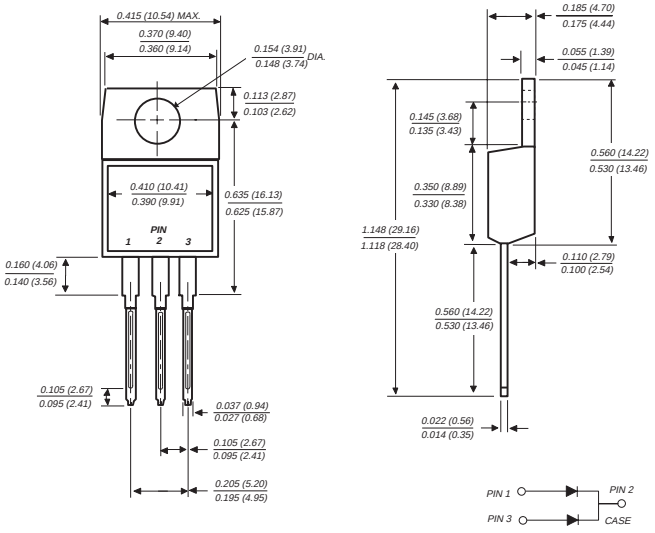
MBR2035CT THRU MBR2060CT

SCHOTTKY RECTIFIER

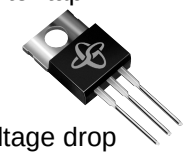
Reverse Voltage - *35 to 60 Volts* ***Forward Current -*** *20.0 Amperes*

TO-220AB



Dimensions in inches and (millimeters)

FEATURES



- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Dual rectifier construction, positive center tap
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guardring for overvoltage protection
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 250°C/10 seconds, 0.25" (6.35mm) from case

MECHANICAL DATA

Case: JEDEC TO-220AB molded plastic
Terminals: Leads solderable per MIL-STD-750, Method 2026
Polarity: As marked
Mounting Position: Any
Mounting Torque: 5 in. - lbs.max.
Weight: 0.08 ounce, 2.24 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	MBR2035CT	MBR2045CT	MBR2050CT	MBR2060CT	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	35	45	50	60	Volts
Maximum working peak reverse voltage	V_{RWM}	35	45	50	60	Volts
Maximum DC blocking voltage	V_{DC}	35	45	50	60	Volts
Maximum average forward rectified current at T_C=135°C	$I_{(AV)}$	20.0				Amps
Peak repetitive forward current per leg at T_C=135°C (rated V_R, sq. wave 2.0 KHz)	I_{FRM}	20.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150.0				Amps
Peak repetitive reverse surge current (NOTE 1)	I_{RRM}	1.0		0.5		Amps
Maximum instantaneous forward voltage per leg 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		Volts
Maximum instantaneous reverse current at rated DC blocking voltage per leg T_C=25°C T_C=125°C	I_R	0.1 15.0		0.15 150.0		mA
Voltage rate of change, (rated V_R)	dv/dt	10,000				V/µs
Typical thermal resistance per leg (NOTE 3)	$R_{\Theta JC}$	2.0				°C/W
Operating junction temperature range	T_J	-65 to +150				°C
Storage temperature range	T_{STG}	-65 to +175				°C

NOTES:
(1) 2.0µs pulse width, f=1.0KHz
(2) Pulse test: 300µs pulse width, 1% duty cycle

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RATINGS AND CHARACTERISTIC CURVES MBR2035CT THRU MBR2060CT

FIG. 1 - FORWARD CURRENT DERATING CURVE

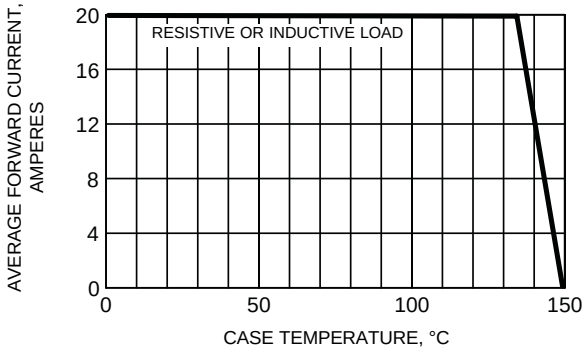


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

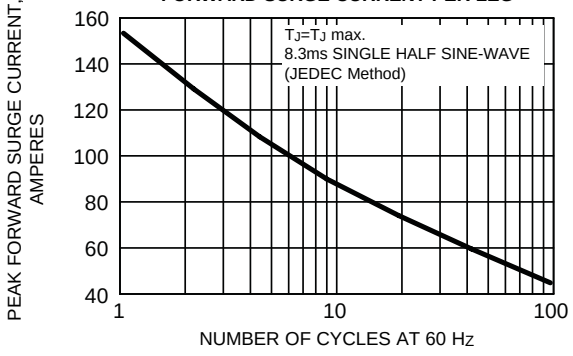


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

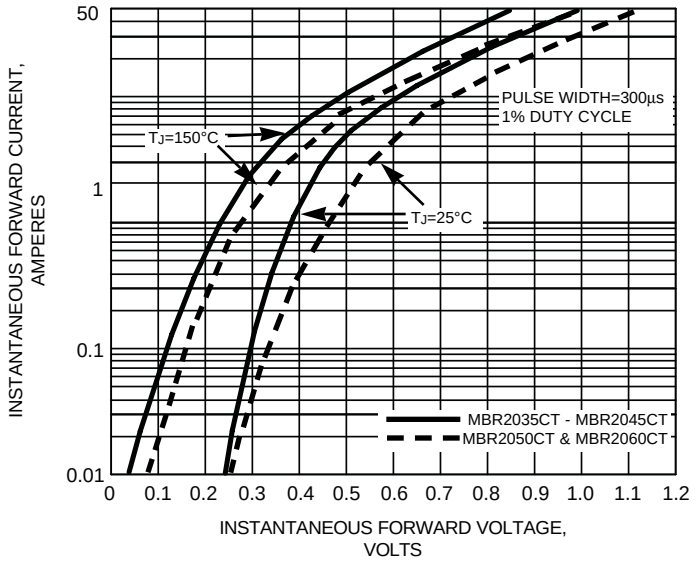


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

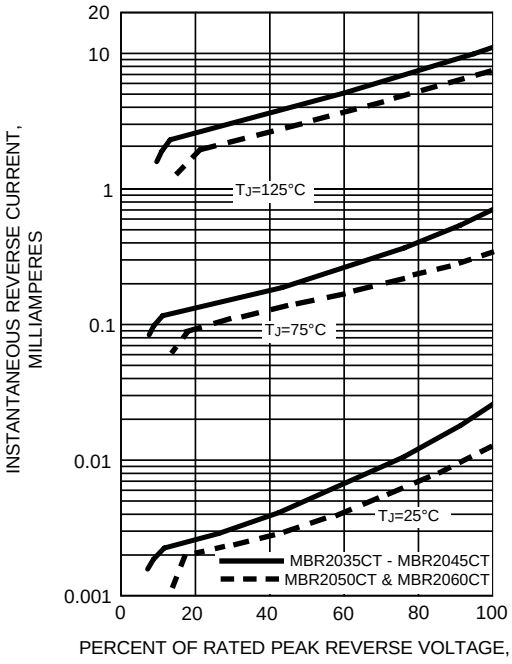


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

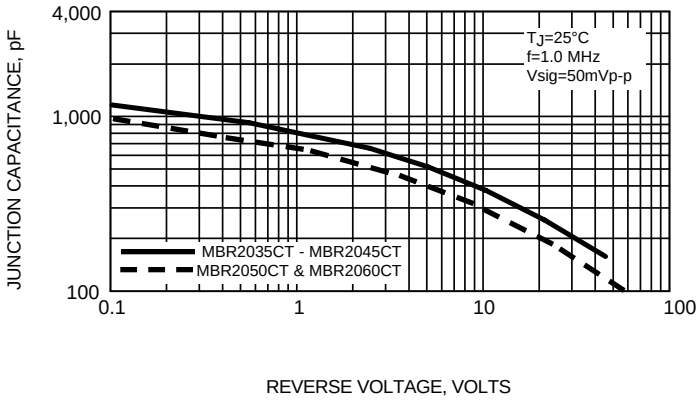
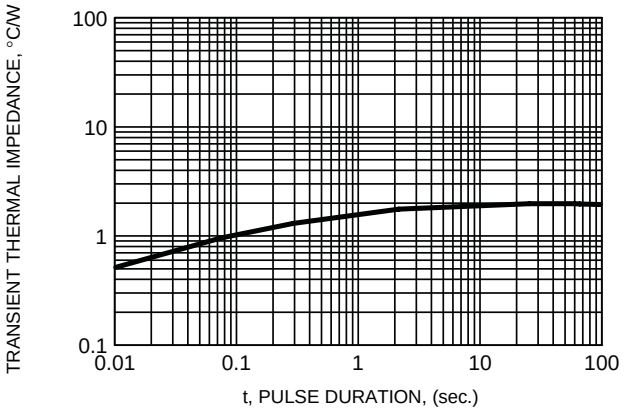


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG



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