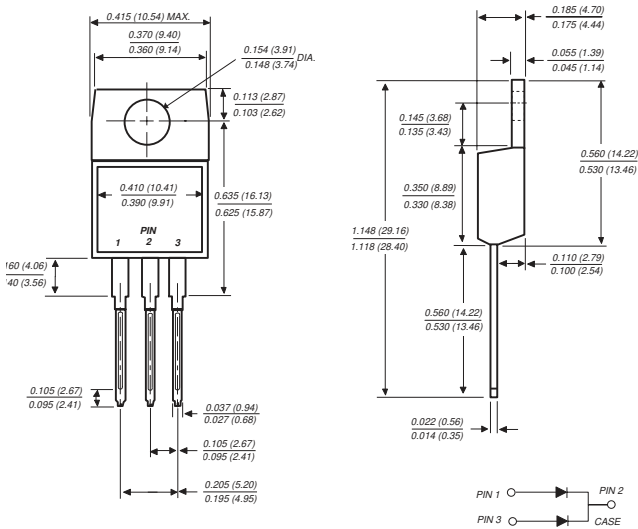


MBR2535CT THRU MBR2560CT

SCHOTTKY RECTIFIER

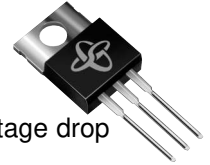
Reverse Voltage - 35 to 60 Volts Forward Current - 30.0 Amperes

TO-220AB



FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classifications 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
- ◆ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- ◆ Guardring for overvoltage protection
- ◆ High temperature soldering guaranteed: 250°C/10 seconds, 0.25" (6.35mm) from case



MECHANICAL DATA

Case: JEDEC TO-220AB molded plastic body

Terminals: Lead 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	MBR2535CT	MBR2545CT	MBR2550CT	MBR2560CT	UNITS
Maximum repetitive peak reverse voltage	VRRM	35	45	50	60	Volts
Maximum working peak reverse voltage	VRWM	35	45	50	60	Volts
Maximum DC blocking voltage	VDC	35	45	50	60	Volts
Maximum average forward rectified current at TC=130°C	IAV)	30.0				Amps
Peak repetitive forward current per leg at TC=130°C (rated VR, square wave, 20 KHz)	IFRM	30.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	150.0				Amps
Peak repetitive reverse surge current (NOTE 1)	IRRM	1.0		0.5		Amps
Maximum instantaneous forward voltage IF=15.0A,TC=25°C per leg at: (NOTE 2) IF=15.0A,TC=25°C IF= 30A, TC=25°C IF= 30A, TC=125°C	VF	- - 0.82 0.73		0.75 0.65 - -		Volts
Maximum instantaneous reverse current at rated DC blocking voltage per leg (NOTE 2) TC=25°C TC=125°C	IR	0.2 40.0		1.0 50.0		mA
Maximum thermal resistance (NOTE 3)	ROJC	1.5				°C/W
Voltage rate of change (rated VR)	dv/dt	10,000				V/μs
Operating junction temperature range	TJ	-65 to +150				°C
Storage temperature range	TSTG	-65 to +175				°C

NOTES:

(1) 2.0μs pulse width, $f=1.0\text{ KHz}$

(2) Pulse test: 300μs pulse width, 1% duty cycle

(3) Thermal resistance from junction to case per leg

RATINGS AND CHARACTERISTIC CURVES MBR2535CT THRU MBR2560CT

FIG. 1 - FORWARD CURRENT DERATING CURVE

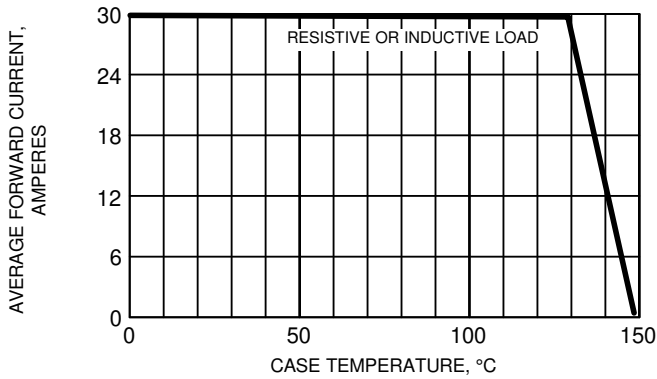


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

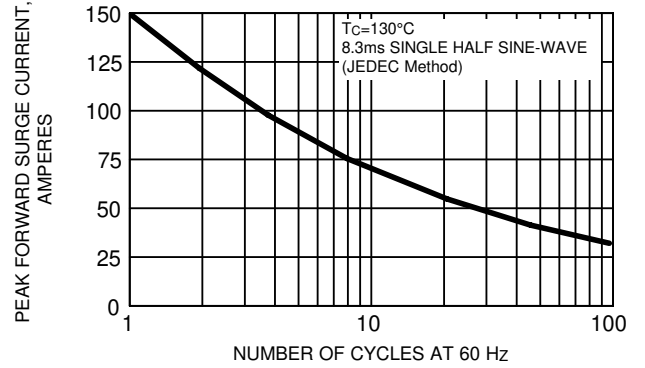


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

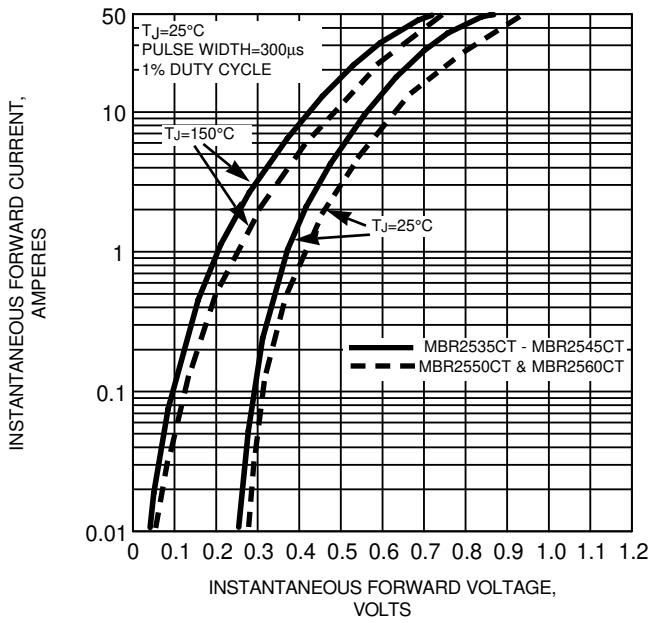


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

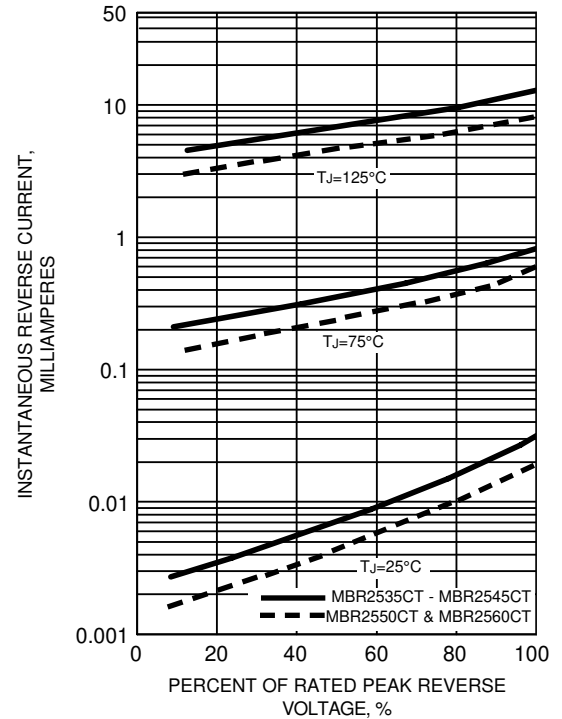


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG

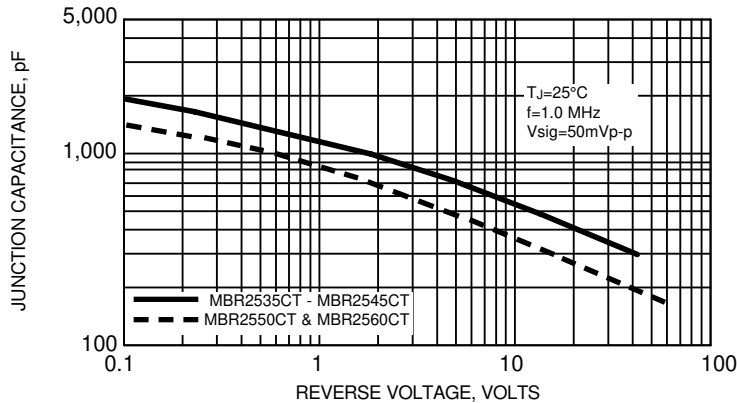


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

