

# MBR2535CT ~ MBR2560CT

# DUAL SCHOTTKY BARRIER RECTIFIERS

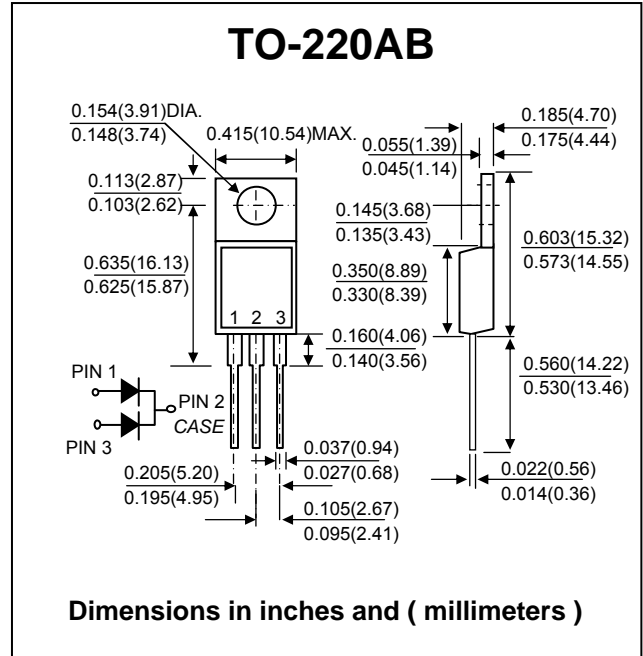
**PRV : 35 ~ 60 Volts**  
**Io : 30 Amperes**

### 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
- \* Guardring for overvoltage protection
- \* For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- \* High temperature soldering : 250°C/10 seconds, 0.25" (6.35mm) from case
- \* **Pb / RoHS Free**

### MECHANICAL DATA :

- \* Case : JEDEC TO-220AB molded plastic body
- \* Terminals: Plated leads, solderable per MIL-STD-750 Method 2026
- \* Polarity: As marked
- \* Mounting Position: Any
- \* Weight : 2.24 grams (Approximately)



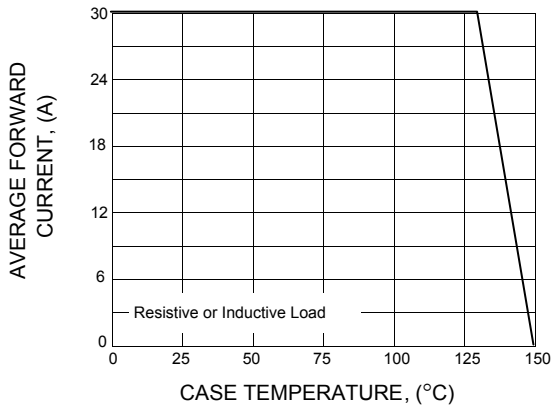
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ( T<sub>c</sub> = 25 °C unless otherwise noted )

RATINGS	SYMBOL	MBR 2535CT	MBR 2545CT	MBR 2550CT	MBR 2560CT	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	35	45	50	60	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	45	50	60	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	35	45	50	60	V
Maximum Average Forward Current at T <sub>c</sub> = 130 °C <i>Total device</i> <i>Per leg</i>	I <sub>F(AV)</sub>	30 15				A
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC Method) Per leg	I <sub>FSM</sub>	150				A
Maximum Instantaneous Forward Voltage per leg (Note 1) at I <sub>F</sub> = 15 A, T <sub>c</sub> = 25 °C at I <sub>F</sub> = 15 A, T <sub>c</sub> = 125 °C at I <sub>F</sub> = 30 A, T <sub>c</sub> = 25 °C at I <sub>F</sub> = 30 A, T <sub>c</sub> = 125 °C	V <sub>F</sub>	-		0.75 0.65		V
Maximum Reverse Current at Rated DC Blocking Voltage per leg (Note 1) T <sub>c</sub> = 25 °C T <sub>c</sub> = 125 °C	I <sub>R</sub> I <sub>R(H)</sub>	0.2 40		1.0 50		mA
Typical Thermal Resistance from Junction to Case Per leg	R <sub>θJC</sub>	1.5				°C/W
Operating Temperature Range	T <sub>J</sub>	- 65 to + 150				°C
Storage Temperature Range	T <sub>STG</sub>	- 65 to + 175				°C

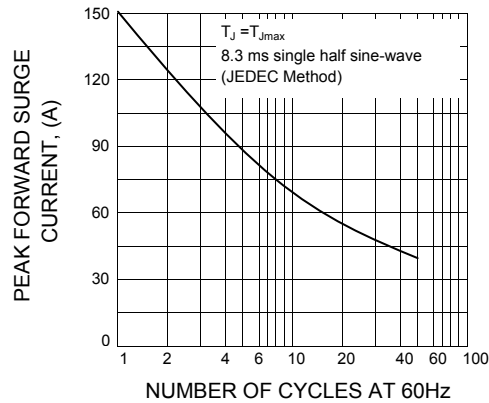
**Note :** (1) Pulse test : 300 μs pluse width, 1% duty cycle

**RATING AND CHARACTERISTIC CURVES ( MBR2535CT ~ MBR2560CT )**

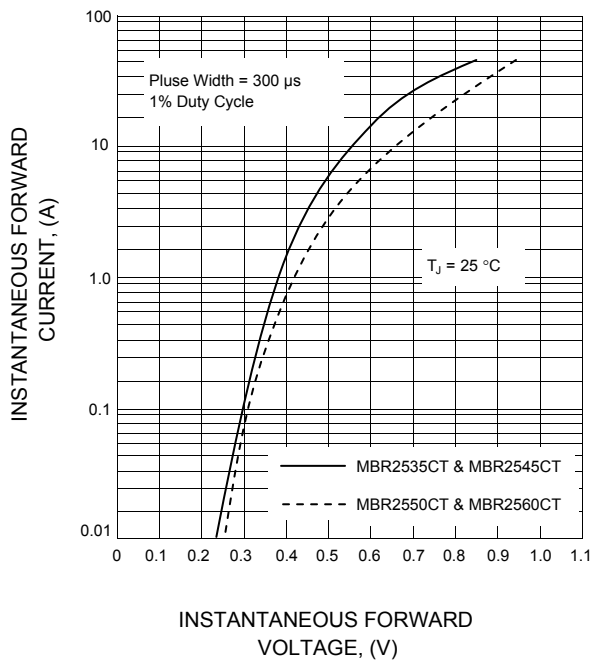
**FIG.1 - FORWARD CURRENT DERATING CURVE**



**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**

