

# MBRB2545CT

**PRV : 45 Volts**  
**Io : 30 Amperes**

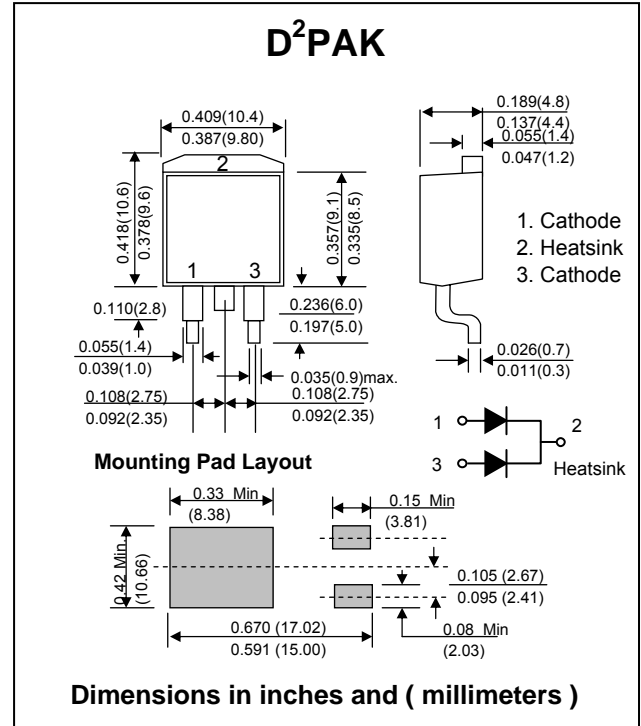
## FEATURES :

- \* Guardring for overvoltage protection
- \* High forward surge capability
- \* High frequency operation
- \* High efficiency
- \* Lower power losses
- \* Low forward voltage drop
- \* Pb / RoHS Free

## MECHANICAL DATA

- \* Case : D<sup>2</sup>PAK (TO-263AB)
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Surface Mount per J-STD-020C, Method 208 guaranteed
- \* Polarity : As marked
- \* Mounting position : Any
- \* Weight : 1.7 grams (approximately)

# DUAL SCHOTTKY BARRIER RECTIFIERS

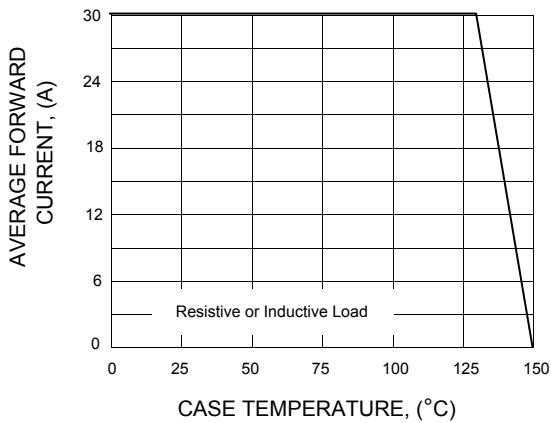
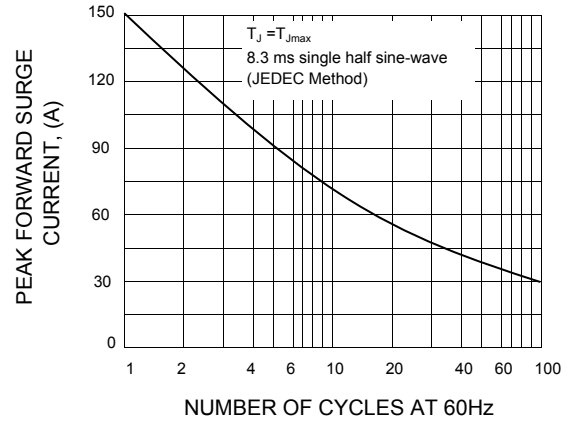
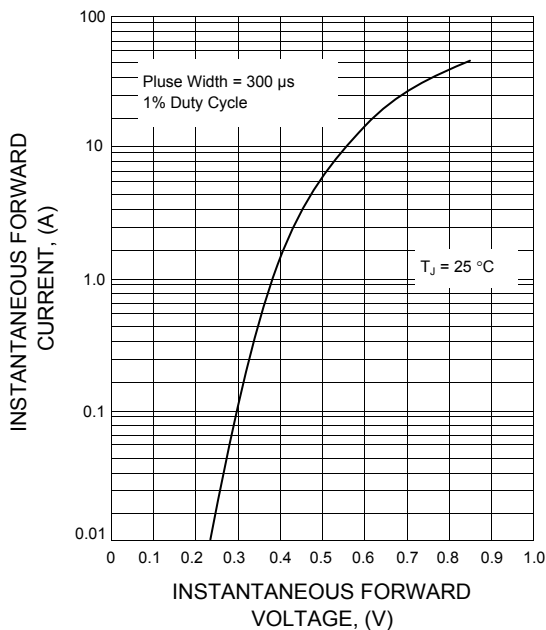


## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ( T<sub>c</sub> = 25 °C unless otherwise noted)

RATINGS	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	45	V
Maximum RMS Voltage	V <sub>RMS</sub>	45	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	45	V
Maximum Average Forward Current at T <sub>C</sub> = 130 °C	I <sub>F(AV)</sub>	30	A
<i>Total device</i> <i>Per Diode</i>		15	
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load Per Diode	I <sub>FSM</sub>	150	A
Maximum Instantaneous Forward Voltage per Diode (Note 1) at I <sub>F</sub> = 30 A, T <sub>C</sub> = 25 °C	V <sub>F</sub>	0.82	V
at I <sub>F</sub> = 30 A, T <sub>C</sub> = 125 °C		0.73	
Maximum Reverse Current at Rated DC Blocking Voltage per Diode (Note 1)	I <sub>R</sub>	0.2	mA
	I <sub>R(H)</sub>	40	mA
Typical Thermal Resistance, Junction to Case Per Diode	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 pulse width, 1% duty cycle

## RATING AND CHARACTERISTIC CURVES ( MBRB2545CT )

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

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

**FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER DIODE**

**FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE**
