

# MBR735 ~ MBR760

**PRV : 35~60 Volts**  
**Io : 7.5 Amperes**

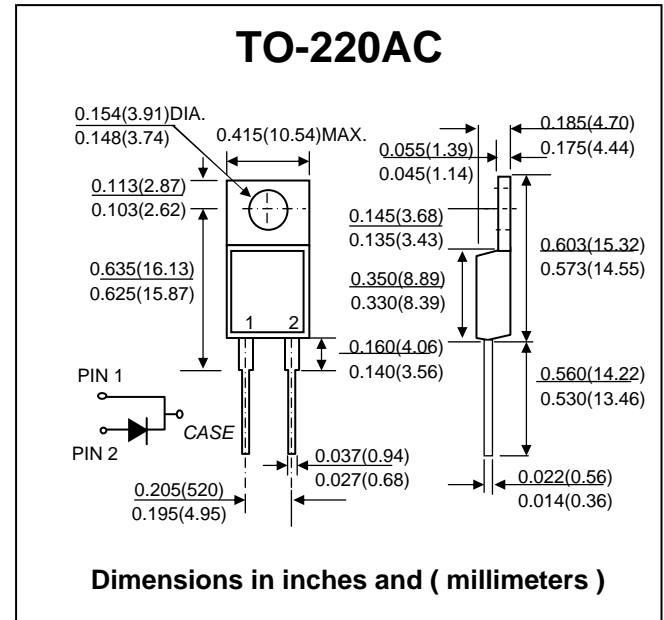
## FEATURES :

- \* Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- \* 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-220AC molded plastic body
- \* Terminals: Plated leads, solderable per MIL-STD-750 Method 2026
- \* Polarity: As marked
- \* Mounting Position: Any
- \* Weight : 2.24 grams (Approximately)

# SCHOTTKY BARRIER RECTIFIER DIODES



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

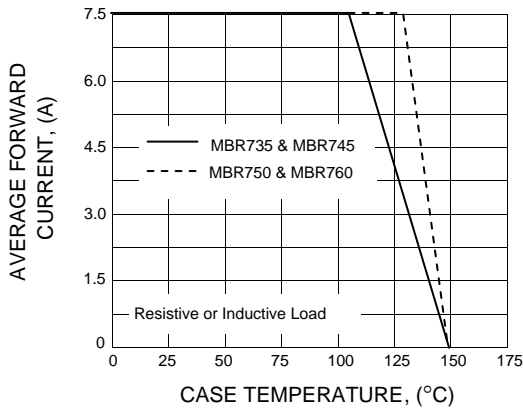
RATINGS	SYMBOL	MBR735	MBR745	MBR750	MBR760	UNIT
Maximum Reptitive Peak Reverse Voltage	V <sub>RRM</sub>	35	45	50	60	V
Maximum Working Peak Reverse Voltage	V <sub>RWM</sub>	35	45	50	60	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	35	45	50	60	V
Maximum Average Forward Rectified Current (See Fig. 1)	I <sub>F(AV)</sub>	7.5				A
Peak Forward Surg Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	150				A
Maximum Instantaneous Forward Voltage (Note 1) at I <sub>F</sub> = 7.5 A, T <sub>C</sub> = 25 °C at I <sub>F</sub> = 7.5 A, T <sub>C</sub> = 125 °C	V <sub>F</sub>	-		0.75		V
		0.57		0.65		
Maximum Reverse Current at Rate	I <sub>R</sub>	0.1		0.5		mA
Peak Reverse Voltage	I <sub>R(H)</sub>	15		50		
Typical Thermal Resistance	R <sub>θJC</sub>	3.0				°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-65 to + 150				°C
Storage Temperature Range	T <sub>STG</sub>	-65 to + 175				°C

### Note :

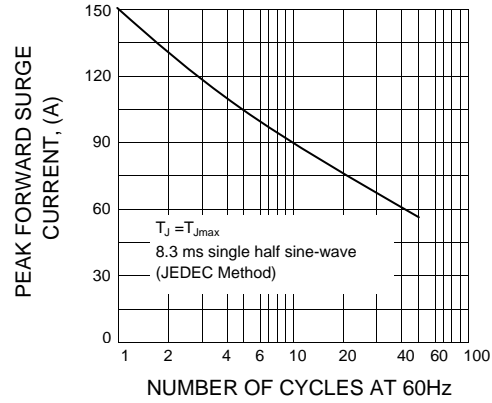
(1) Pulse test : 300 μs pluse width, 1% duty cycle

## RATING AND CHARACTERISTIC CURVES ( MBR735 ~ MBR760 )

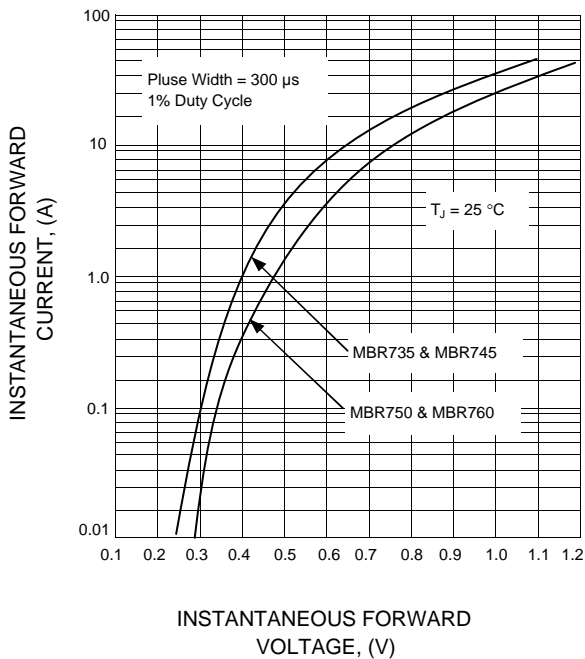
**FIG.1 - FORWARD CURRENT DERATING CURVE**



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



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



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

