

# MBR150 ~ MBR160

# SCHOTTKY BARRIER RECTIFIER DIODES

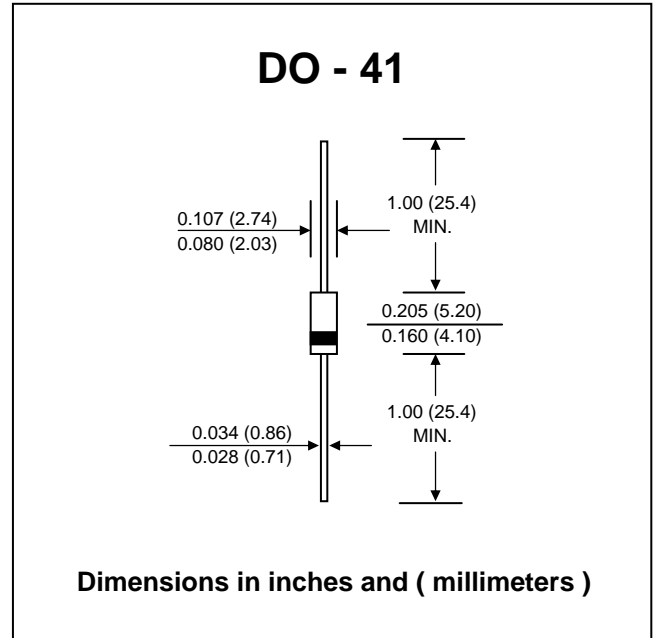
**PRV : 50 - 60 Volts**  
**I<sub>o</sub> : 1.0 Ampere**

### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* High efficiency
- \* Low power loss
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

### MECHANICAL DATA :

- \* Case : DO-41 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.312 gram



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

RATING	SYMBOL	MBR150	MBR160	UNIT
Maximum Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	50	60	V
Maximum Working Peak Reverse Voltage	V <sub>RMS</sub>	50	60	V
Maximum DC Blocking Voltage	V <sub>bdc</sub>	50	60	V
Maximum Average Forward Current , Ta = 55 °C	I <sub>F(AV)</sub>	1.0		A
Maximum Non-repetitive Peak Surge Current, (Surge applied at rated load conditions, Half wave, single phase 60 Hz, T <sub>L</sub> = 70°C)	I <sub>FSM</sub>	25		A
Maximum Instantaneous Forward Voltage at I <sub>F</sub> = 1.0 A <sup>(1)</sup>	V <sub>F</sub>	0.75		V
Maximum Reverse Current at Rated DC Blocking Voltage <sup>(1)</sup>	I <sub>R</sub>	0.5 (T <sub>L</sub> = 25 °C)		mA
	I <sub>R(H)</sub>	5.0 (T <sub>L</sub> = 25 °C)		mA
Maximum Peak Operation Junction Temperature	T <sub>J(PK)</sub>	150		°C
Operating and Storage Junction Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	- 65 to + 150		°C

### Note :

(1) Pulse Test : Pulse Width = 300μs, Duty Cycle = 2%

## RATING AND CHARACTERISTIC CURVES ( MBR150 - MBR160 )

FIG.1 - FORWARD CURRENT DERATING CURVE

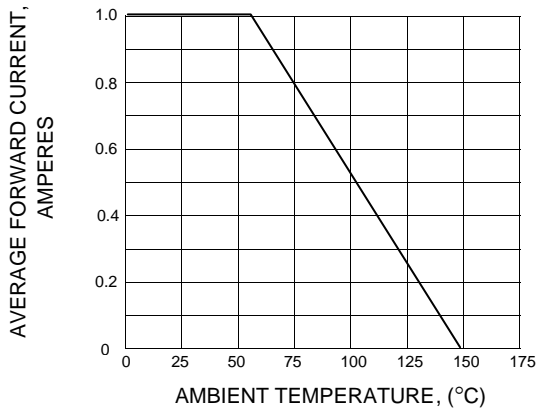


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

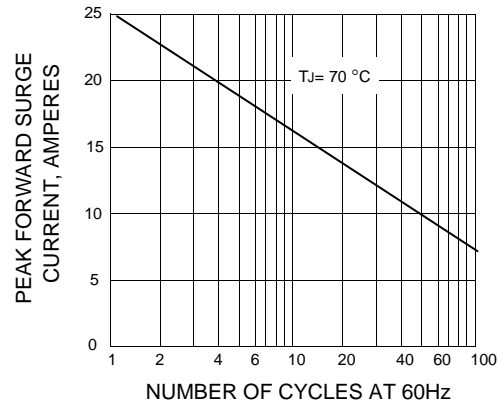


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

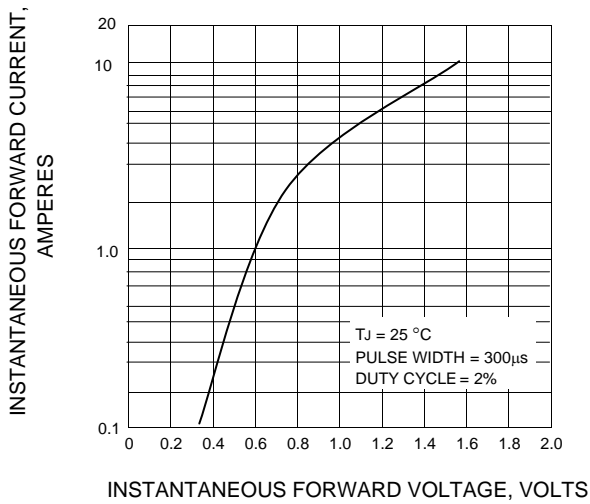


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

