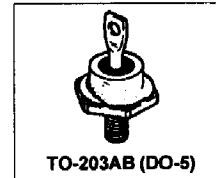


MBR7535
MBR7545

SCHOTTKY RECTIFIER

70 Amp



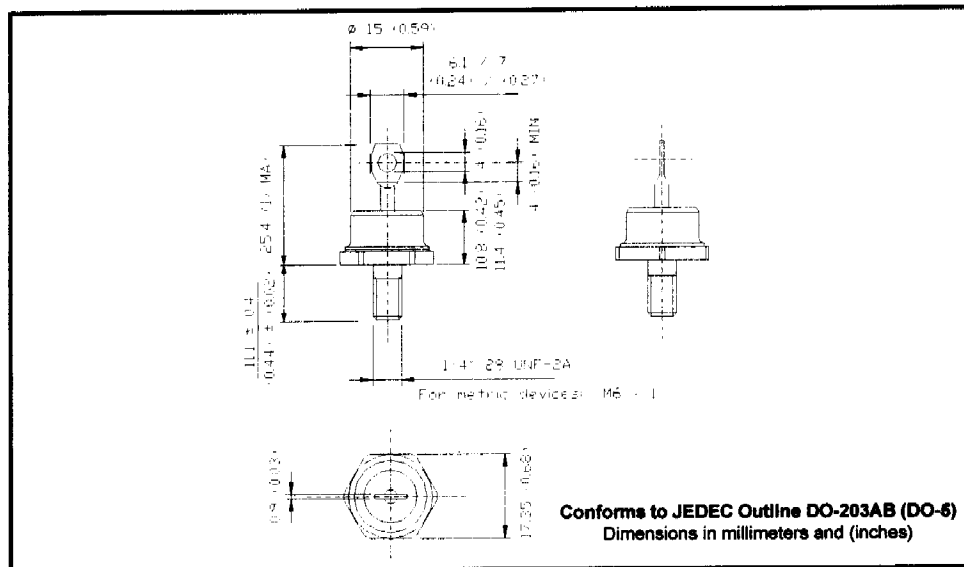
Major Ratings and Characteristics

Characteristics	MBR75..	Units
$I_{F(AV)}$ Rectangular waveform	70	A
V_{RRM}	35/45	V
I_{FSM} @ 60Hz	1000	A
V_F @ 60 Apk, $T_J = 125^\circ\text{C}$	0.60	V
T_J	-65 to 150	$^\circ\text{C}$

Description/ Features

The MBR75.. Schottky rectifier has been optimized for low reverse leakage at high temperature. The proprietary barrier technology allows for reliable operation up to 150°C junction temperature. Typical applications are in switching power supplies, converters, free-wheeling diodes, and reverse battery protection.

- 150°C T_J operation
- Low forward voltage drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- Hermetic packaging



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

MBR7535, MBR7545

Voltage Ratings

Part number	MBR7535	MBR7545
V_R Max. DC Reverse Voltage (V)	35	45
V_{RWM} Max. Working Peak Reverse Voltage (V)		

Absolute Maximum Ratings

Parameters	MBR75..	Units	Conditions
$I_{F(AV)}$ Max. Average Forward Current	70	A	@ $T_C = 90^\circ\text{C}$, rectangular wave form
I_{FSM} Max. Peak One Cycle Non-Repetitive Surge Current	9000	A	5 μs Sine or 3 μs Rect. pulse Surge applied at rated load condition halfwave single phase 60Hz
	1000		

Electrical Specifications

Parameters	MBR75..	Units	Conditions
V_{FM} Max. Forward Voltage Drop(1)	0.60	V	@ 60A
	0.90	V	@ 220A
I_{RM} Max. Instantaneous Reverse Current (1)	150	mA	$T_J = 125^\circ\text{C}$ Rated DC voltage
C_T Max. Junction Capacitance	4000	pF	$V_R = 5V_{DC}$, (test signal range 100Khz to 1Mhz) 25°C
L_S Typical Series Inductance	7.5	nH	Measured from top of terminal to mounting plane
dv/dt Max. Voltage Rate of Change (Rated V_R)	10000	V/ μs	

(1) Pulse Width < 300 μs , Duty Cycle < 2%

Thermal-Mechanical Specifications

Parameters	MBR75..	Units	Conditions
T_J Max. Junction Temperature Range	-65 to 150	$^\circ\text{C}$	
T_{stg} Max. Storage Temperature Range	-65 to 150	$^\circ\text{C}$	
R_{thJC} Max. Thermal Resistance Junction to Case	0.83	$^\circ\text{C}/\text{W}$	DC operation
R_{thCS} Typical Thermal Resistance, Case to Heatsink	0.25	$^\circ\text{C}/\text{W}$	Mounting surface, smooth and greased
wt Approximate Weight	15 (0.53)	g (oz.)	
T Mounting Torque	Min. 23 (20)	Kg-cm (lbf-in)	
	Max. 46 (40)		
Case Style	DO-203AB(DO-5)	JEDEC	

* For Additional Informations and Graphs, Please See the 75HQ Series