



**Schottky Barrier Rectifier**  
**Reverse Voltage 40 to 200 Volts**  
**Forward Current 60 Amperes**

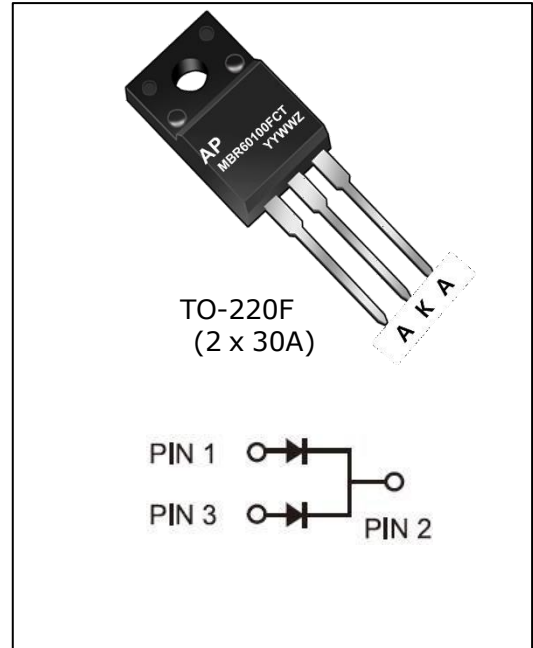
**Features**

- Metal silicon junction majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- High temperature soldering guaranteed:  
260°C/10 seconds at terminals
- Plastic package has Underwriters Laboratory  
Flammability Classification 94V-0
- For use in low voltage, high frequency inverters,  
free-wheeling, and polarity protection application

**Technical Data**

**Case :** JEDEC ITO-220 molded plastic body

**Terminals :** Plated axial leads, solderable  
per MIL-STD-750, method 2026



**Maximum Ratings Characteristics**

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	MBR 6040	MBR 6045	MBR 6060	MBR 6080	MBR 60100	MBR 60120	MBR 60150	MBR 60200	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	40	45	60	80	100	120	150	200	V
Maximum RMS voltage	$V_{RMS}$	28	31.5	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	40	45	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length	$I_{F(AV)}$	60.0								A
Peak forward surge current, 8.3mS single half sine-wave superimposed on rated load	$I_{FSM}$	350								A
Maximum instantaneous forward voltage at 1/2 $I_{F(AV)}$	$V_F$	0.55	0.75	0.85	0.90	0.95				V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_a = 25^\circ\text{C}$	0.5		0.1						mA
	$T_a = 100^\circ\text{C}$	50		10						
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JC}$	4								°C/W
Junction Temperature Range	$T_J, T_{STG}$	-65 to +150								°C
Storage Temperature Range	$T_J, T_{STG}$	-65 to +150								°C

**Note**

- (1) Single phase, half wave, 60HZ, resistive or inductive load. For capacitive load, derate current by 20%.
- (2) PCB mounted with 0.2X0.2"(5.0X5.0 mm) copper pad areas.



Characteristics Curves

( TA = 25°C unless otherwise specified )

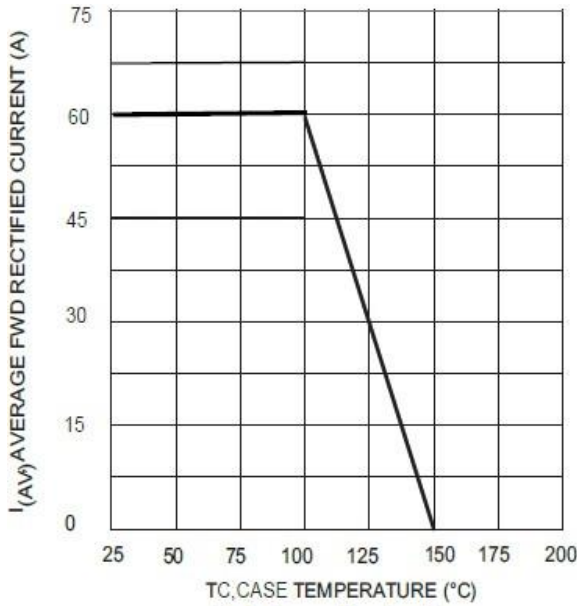


Fig. 1 Forward Derating Curve

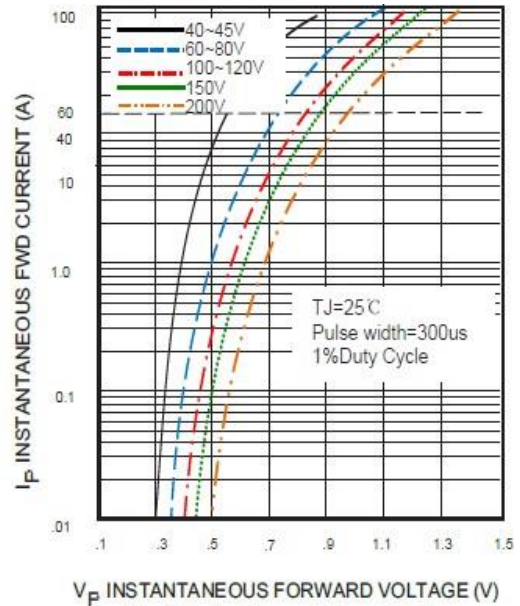


Fig. 2 Typical Forward Characteristics

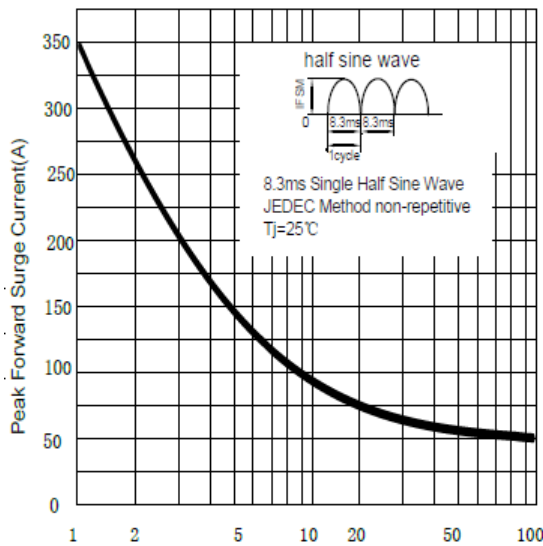


Fig. 3 Peak Forward Surge Current

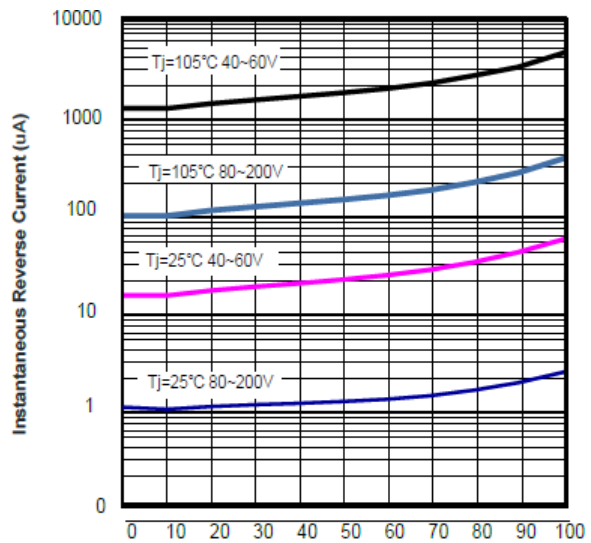
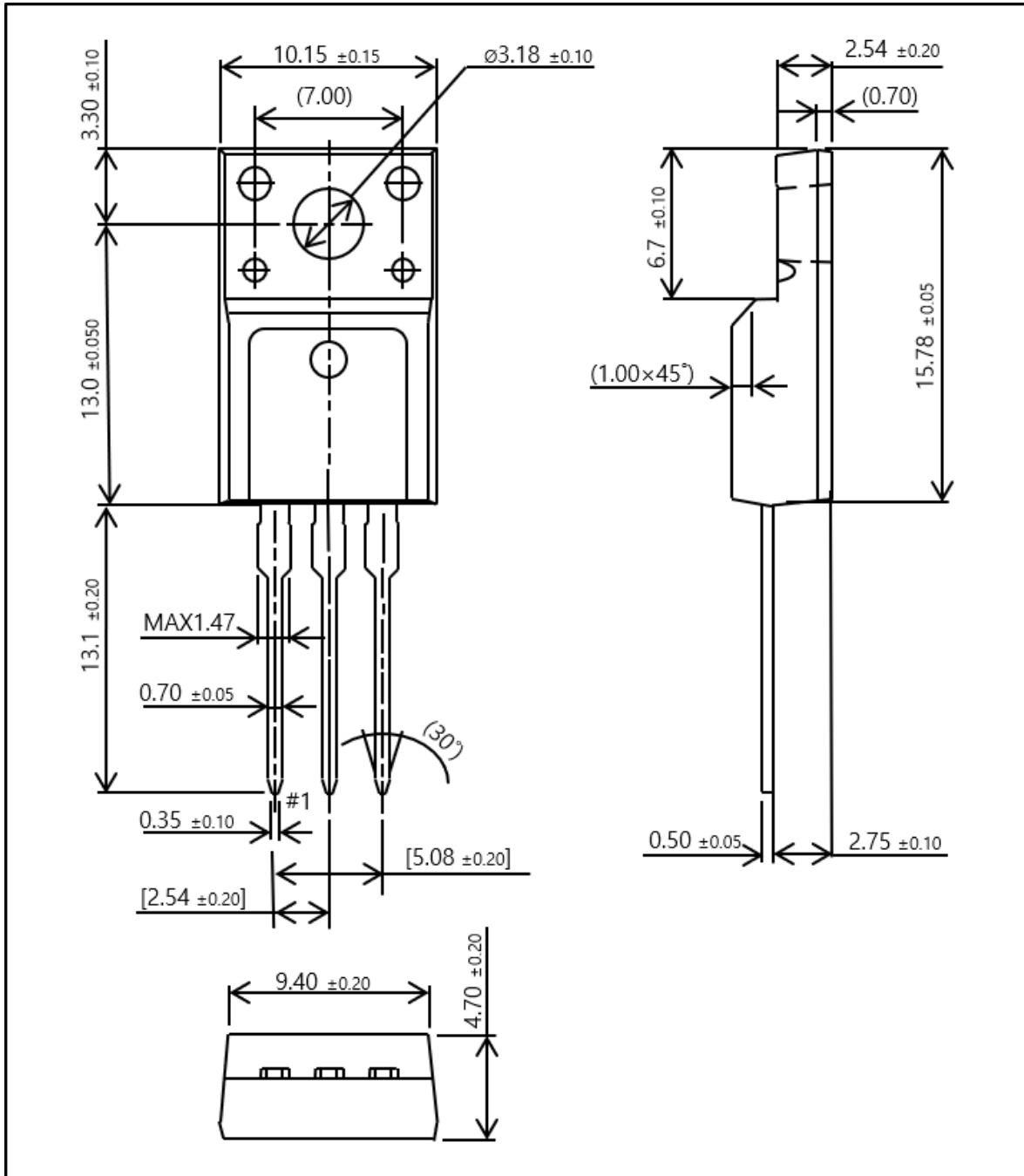


FIG.4-TYPICAL FORWARD CHARACTERISTICS



### Package Dimensions

Unit : mm



REV. 00



## Revision History

No	Date	Contents
0	2024-09-10	Initial Brief Datasheet Release

<http://www.apsemi.com>

### IMPORTANT NOTICE

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