

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

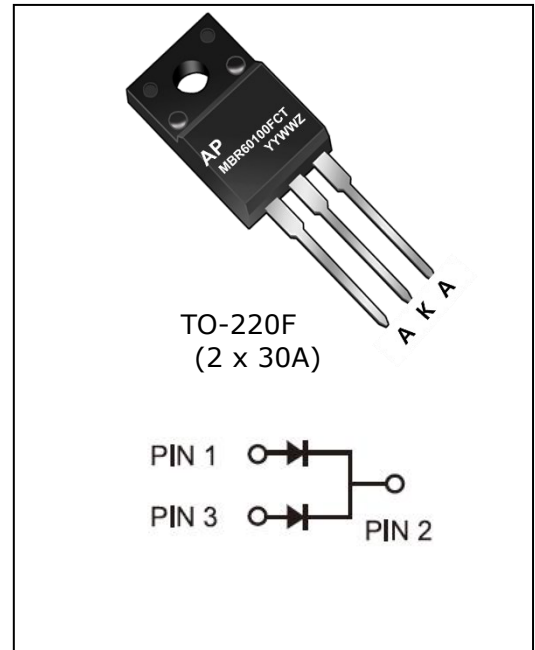
Features

- 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	50	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 1/2I _{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°C	I _R	0.5			0.1				mA	
	T _a = 100°C		50			10					
Typical Thermal Resistance ⁽²⁾		R _{θJC}	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

($T_A = 25^\circ\text{C}$ unless otherwise specified)

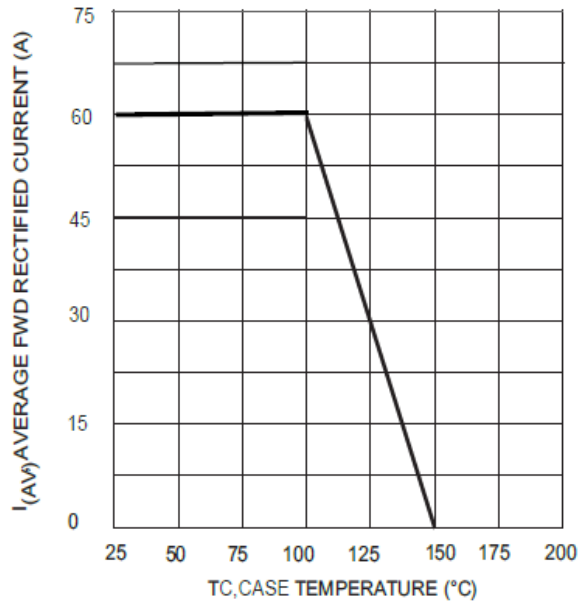


Fig. 1 Forward Derating Curve

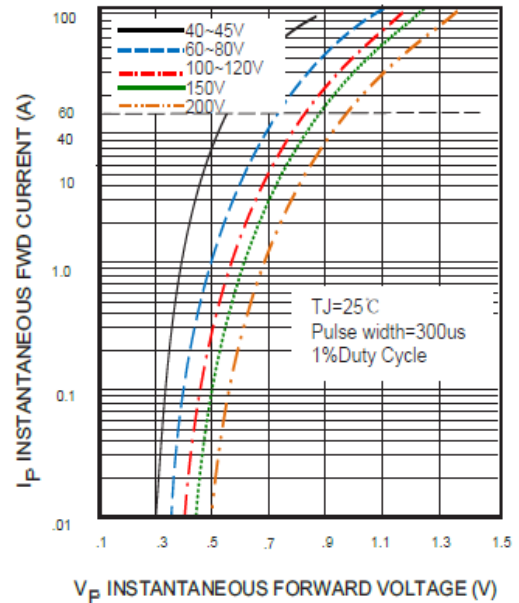


Fig. 2 Typical Forward Characteristics

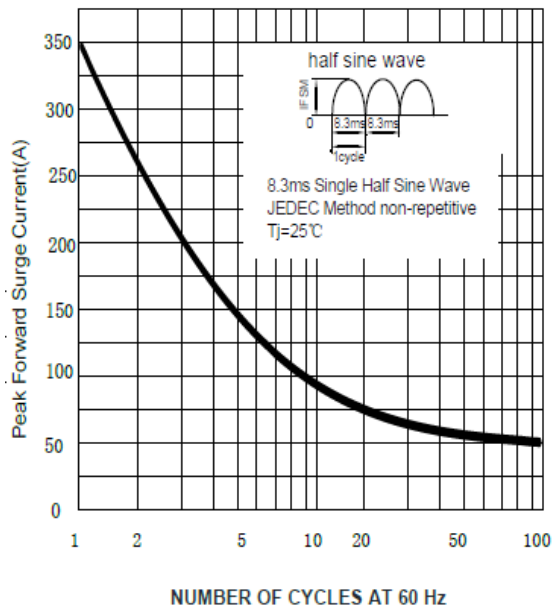


Fig. 3 Peak Forward Surge Current

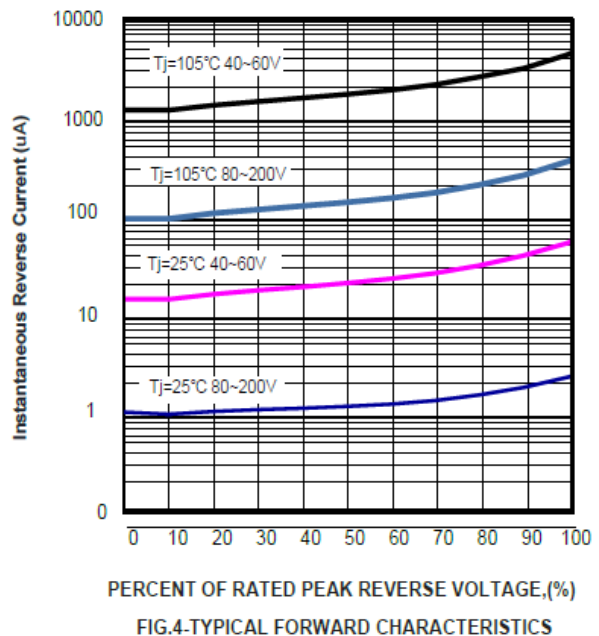
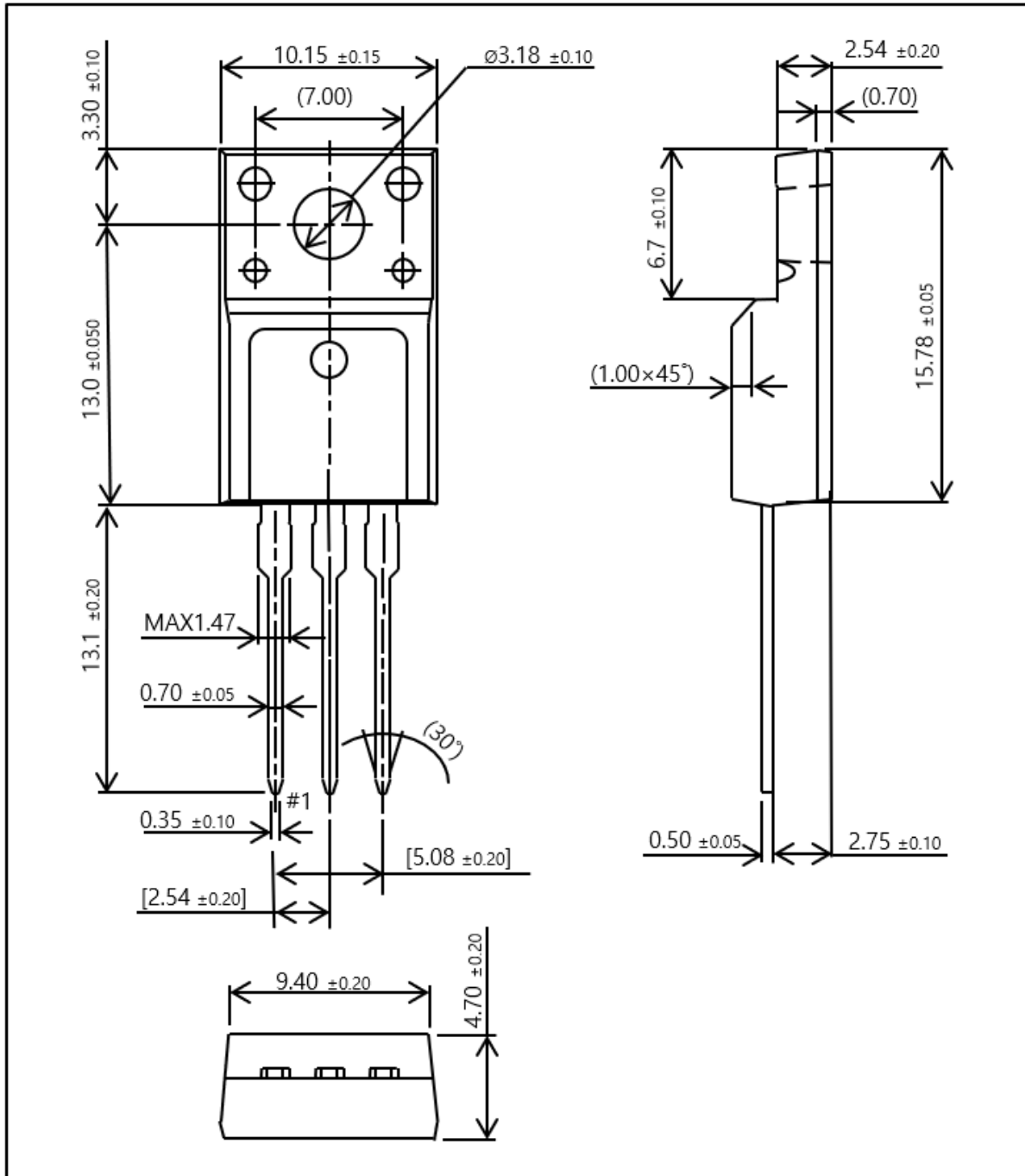


FIG.4-TYPICAL FORWARD CHARACTERISTICS



Package Dimensions

Unit : mm



REV. 00



Revision History

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

<http://www.apsemi.com>

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