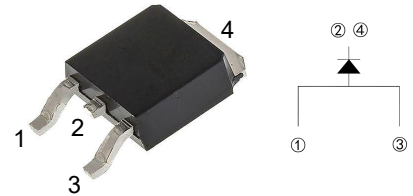


Schottky Barrier Rectifier Diodes in TO-252

Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



Mechanical Data

- **Case:** TO-252 (plastic package).
Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals

Applications

- Power switching application
- Hard switched and high frequency circuits
- Uninterruptible power supply

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

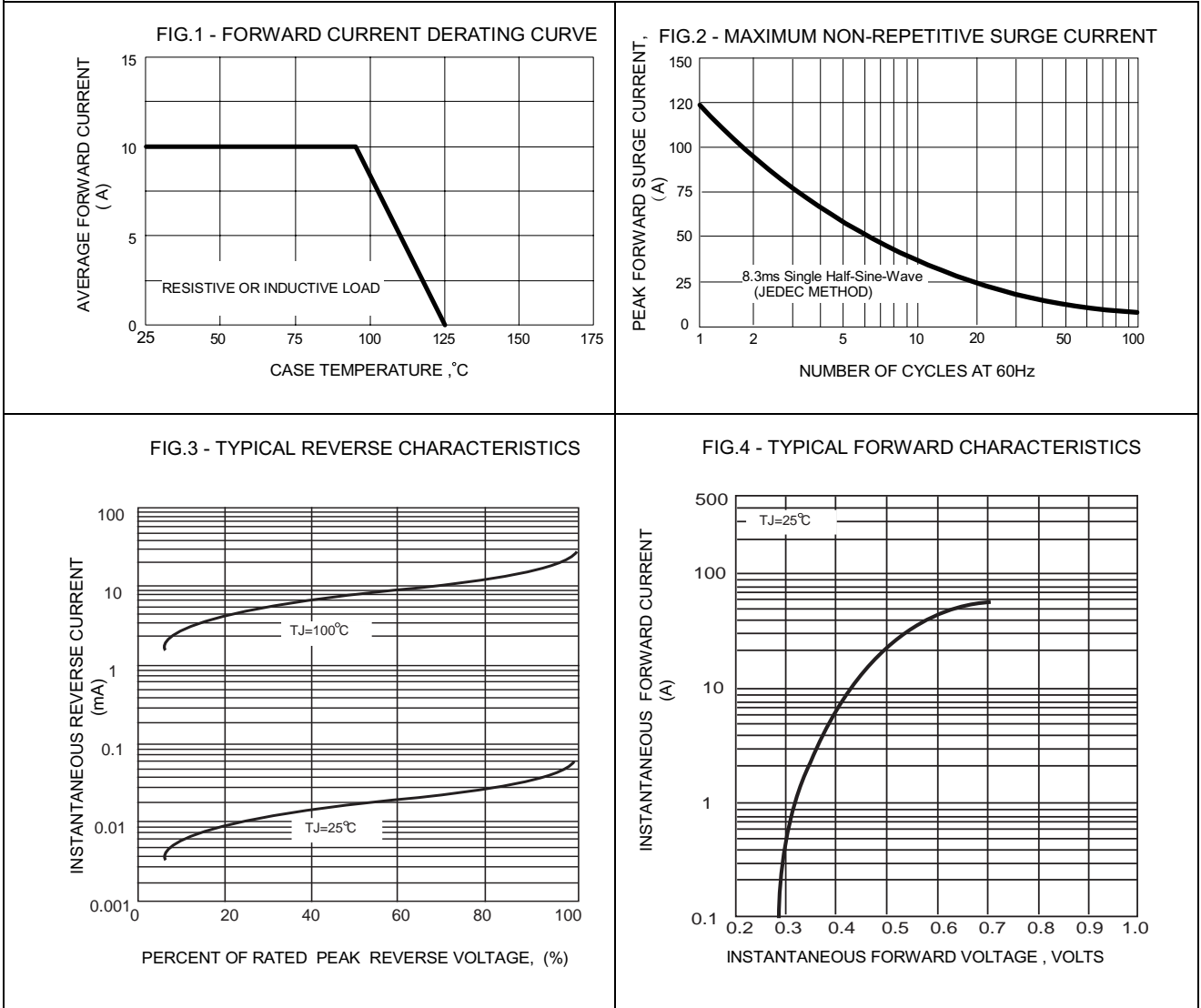
Symbol	Parameter	Value	Unit
V_{RRM}	Peak repetitive reverse voltage	45	V
V_{RWM}	Working peak reverse voltage		
V_R	DC blocking voltage		
$V_{R(RMS)}$	RMS reverse voltage	31.5	V
I_O	Average rectified output current @ $T_c=110^\circ\text{C}$ per device per diode	10 5	A
I_{FSM}	Non-Repetitive peak forward surge current 8.3ms half sine wave	120	A
$R_{\theta JC}$	Typical thermal resistance	15	°C/W
T_j	Junction temperature	-55~+150	°C
T_{stg}	Storage temperature	-55~+150	°C

Electrical Characteristics

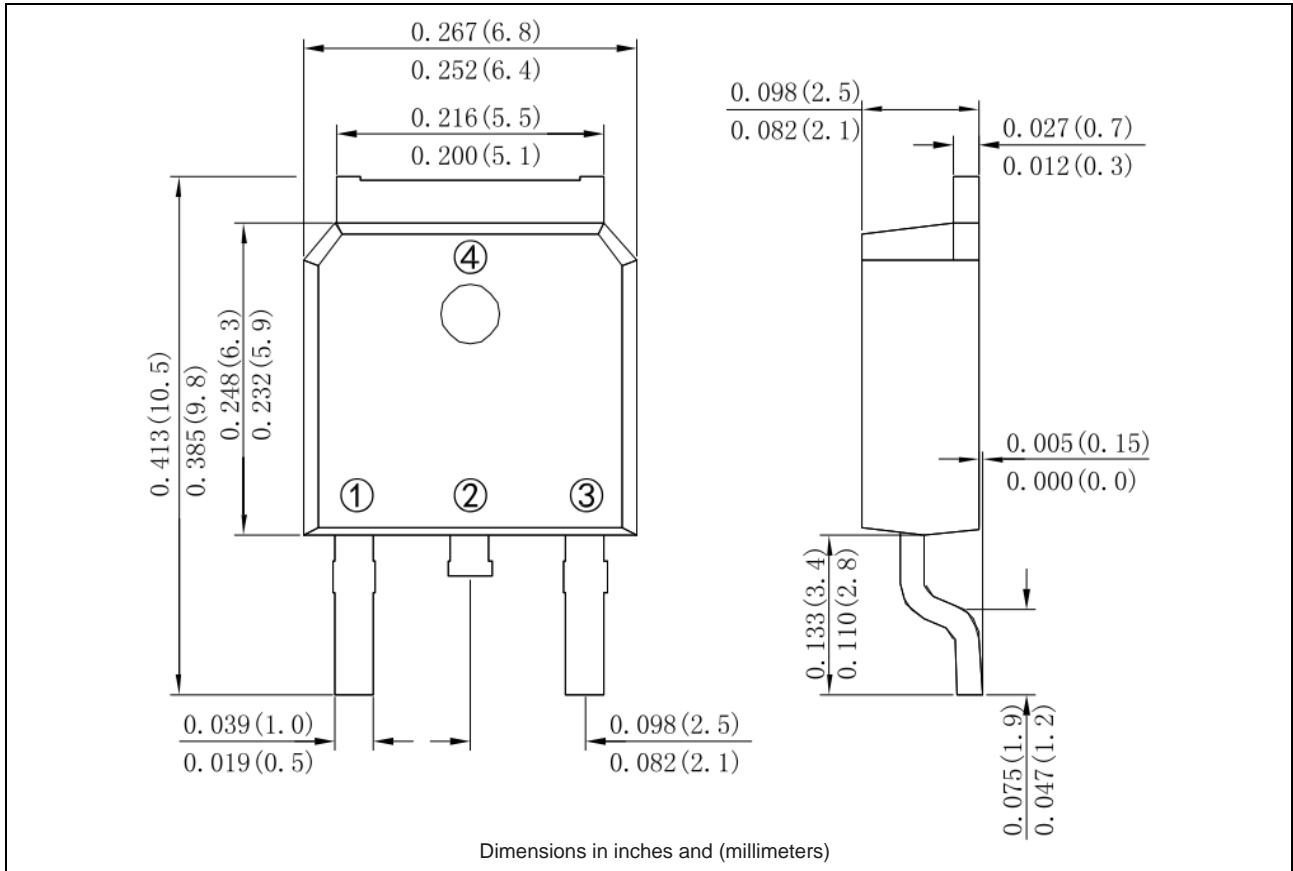
($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=1\text{mA}$	45			V
Reverse current	I_R	$V_R=45\text{V}, T_A=25^\circ\text{C}$			0.5	mA
Reverse current	I_R	$V_R=45\text{V}, T_A=125^\circ\text{C}$			50	mA
Forward voltage (per diode)	V_F	$I_F=5\text{A}, T_C=25^\circ\text{C}$			0.55	V

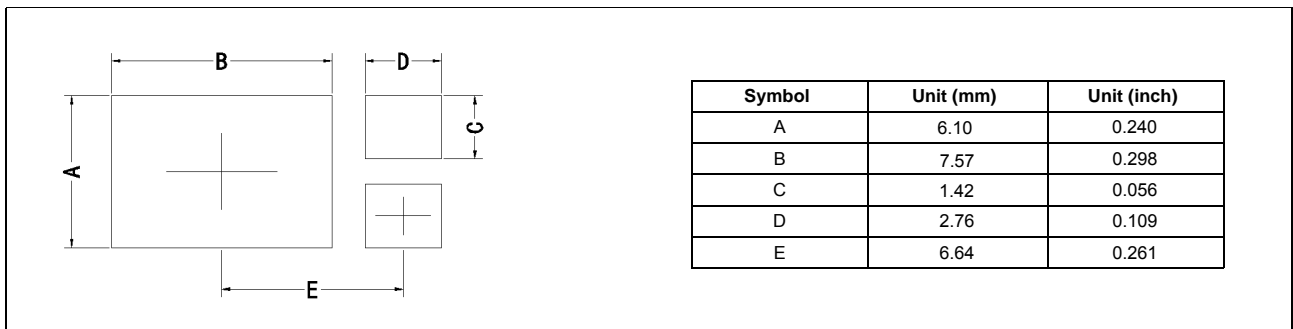
Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)



Package Dimensions



Pad Dimensions



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
MBRS1045D	TO-252	Tape/Reel	3000PCS/Reel	EIA STD RS-481

Revision history

Date	Revision	Changes
1-Apr-2018	1.0	Initial release

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