

# PGR9016PT

## General Purpose Rectifier

<b>Voltage</b>	<b>1600 V</b>	<b>Current</b>	<b>90 A</b>
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### Features

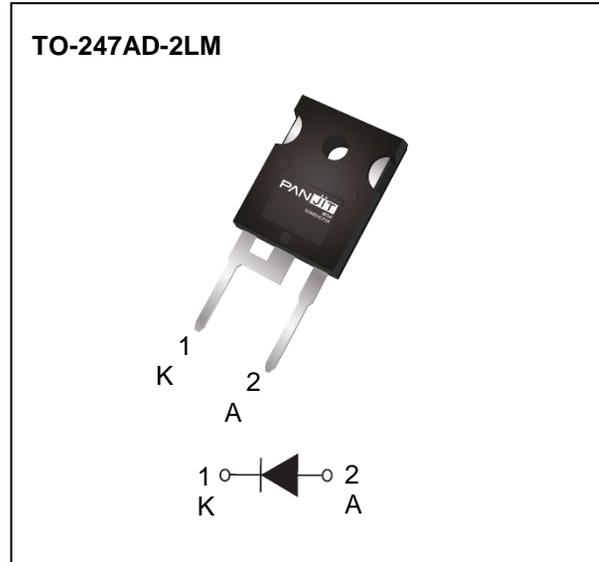
- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Glass passivated chip junction
- Solder dip 265°C max.10 s, per JESD 22-B106
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### Typical Applications

- For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

### Mechanical Data

- Case: TO-247AD-2LM Package
- Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Color Band denotes cathode end
- Approx. Weight: 5.69grams



### Maximum Ratings (T<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	1600	V
Maximum RMS Voltage	V <sub>RMS</sub>	1120	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	1600	V
Average Forward Current @Half-Sine Wave, Resistance Load With Heatsink T <sub>C</sub> =90 °C	I <sub>O</sub>	90	A
Average Forward Current @Half-Sine Wave, Resistance Load Without Heatsink T <sub>C</sub> =25 °C		22.5	A
Forward Surge Current (Non-repetitive) @50HZ sine wave, 1cycle, T <sub>A</sub> =25 °C	I <sub>FSM</sub>	915	A
Current Squared Time @1ms≤t10≤ms T <sub>A</sub> =25 °C · Rating Of Per Diode	I <sup>2</sup> t	4185	A <sup>2</sup> S
Typical Thermal Resistance	R <sub>θJC</sub>	0.25	°C/W
Operating And Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

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

PARAMETER	SYMBOL	TEST CONDITION	LIMIT	UNIT
Peak Forward Voltage	$V_{FM}$	$I_F=90A$	1.2	V
Peak Reverse Current	$I_{RRM}$	$V_R=V_{DC}$ @ $T_A=25\text{ }^\circ\text{C}$	5	$\mu A$
		$V_R=V_{DC}$ @ $T_A=125\text{ }^\circ\text{C}$	500	$\mu A$
Mounting torque	-	min	6	kgf.cm
		max	12	

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## TYPICAL CHARACTERISTIC CURVES

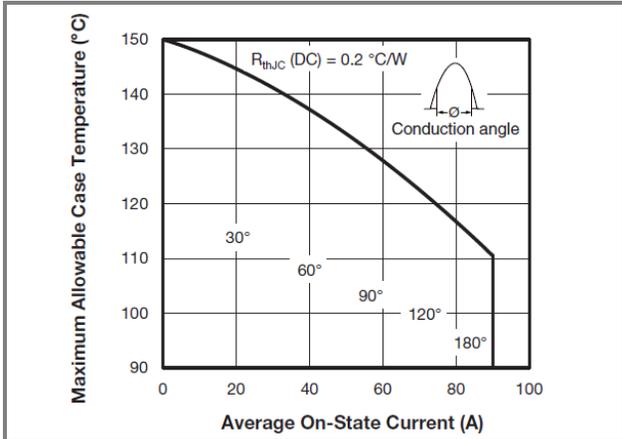


Fig.1 Current Rating Characteristics

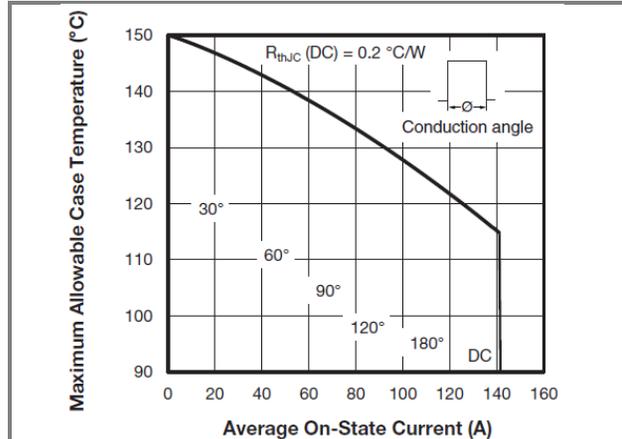


Fig.2 Current Rating Characteristics

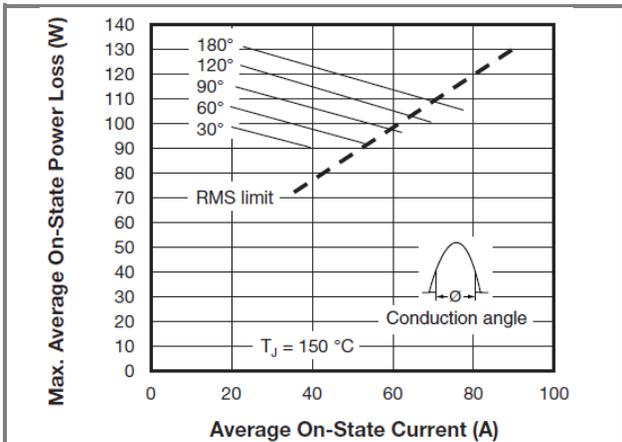


Fig.3 Forward Power Loss Characteristics

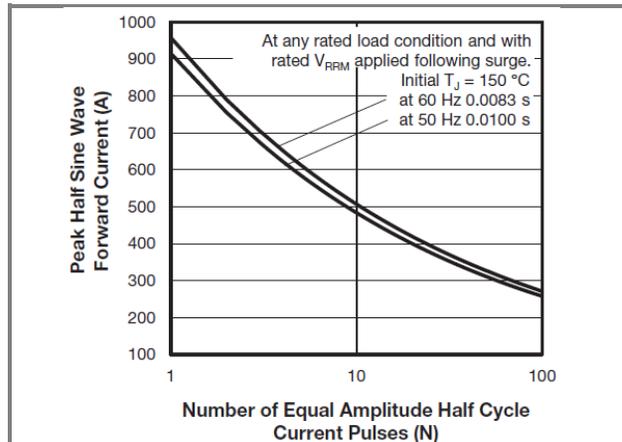


Fig.4 Maximum Non-Repetitive Surge Current

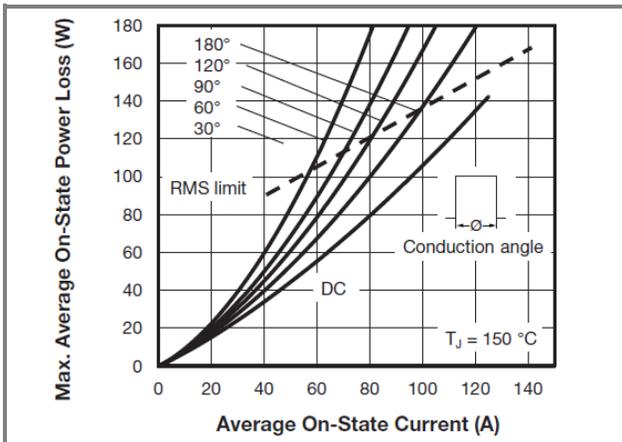


Fig.5 Forward Power Loss Characteristics

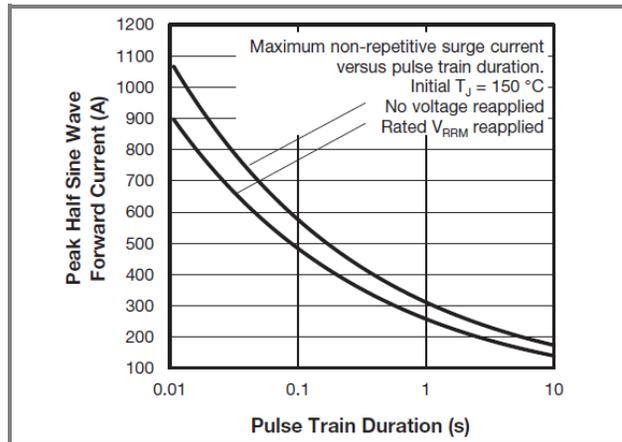


Fig.6 Maximum Non-Repetitive Surge Current

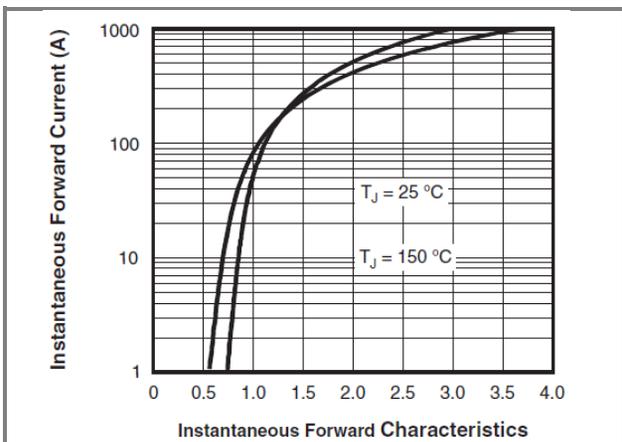


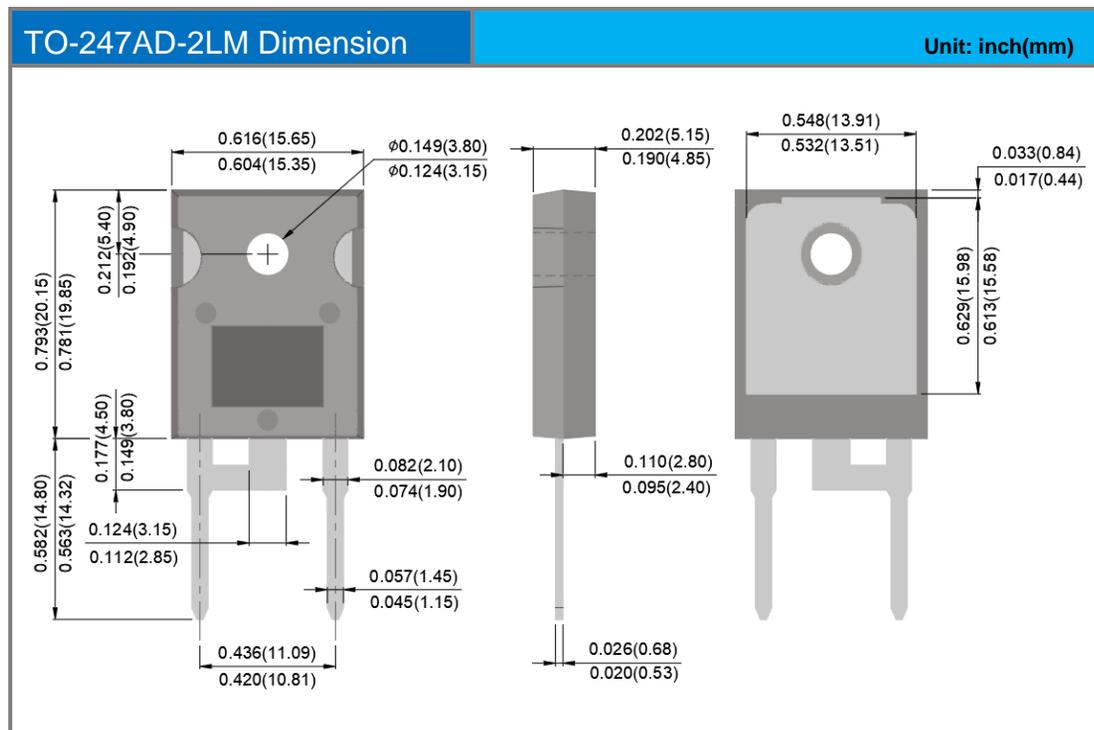
Fig.7 Forward Voltage Drop Characteristics

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## Product and Packing Information

Part No.	Package Type	Packing Type	Marking
PGR9016PT	TO-247AD-2LM	30 pcs / Tube	PGR9016PT

## Packaging Information



## **PGR9016PT**

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