

# PGR6016PT

## General Purpose Rectifier

<b>Voltage</b>	<b>1600 V</b>	<b>Current</b>	<b>60 A</b>
----------------	---------------	----------------	-------------

### Features

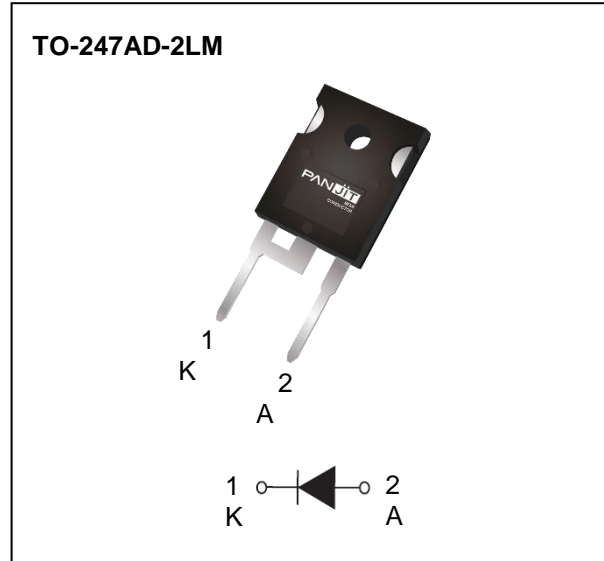
- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Glass passivated chip junction
- Solder dip 265°C max.10 s, per JESD 22-B106
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### 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>	60	A
Average Forward Current @Half-Sine Wave, Resistance Load Without Heatsink T <sub>C</sub> =25 °C		15	A
Forward Surge Current (Non-repetitive) @50HZ sine wave, 1cycle, T <sub>A</sub> =25 °C	I <sub>FSM</sub>	800	A
Current Squared Time @1ms≤t10≤ms T <sub>A</sub> =25 °C · Rating Of Per Diode	I <sup>2</sup> t	3200	A <sup>2</sup> S
Typical Thermal Resistance	R <sub>θJC</sub>	0.35	°C/W
Operating And Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

# PGR6016PT

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

PARAMETER	SYMBOL	TEST CONDITION	LIMIT	UNIT
Peak Forward Voltage	$V_{FM}$	$I_F=60A$	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	

# PGR6016PT

## TYPICAL CHARACTERISTIC CURVES

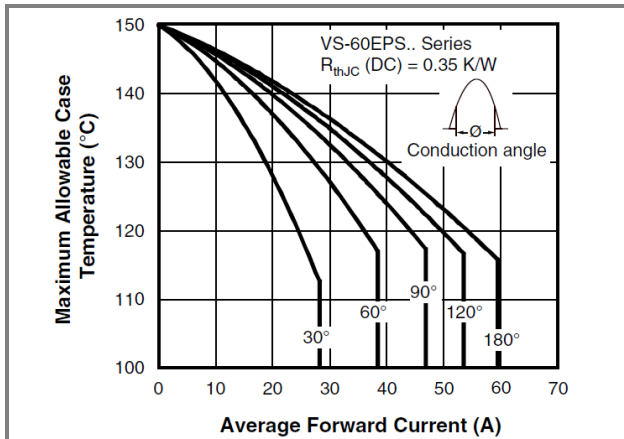


Fig.1 Current Rating Characteristics

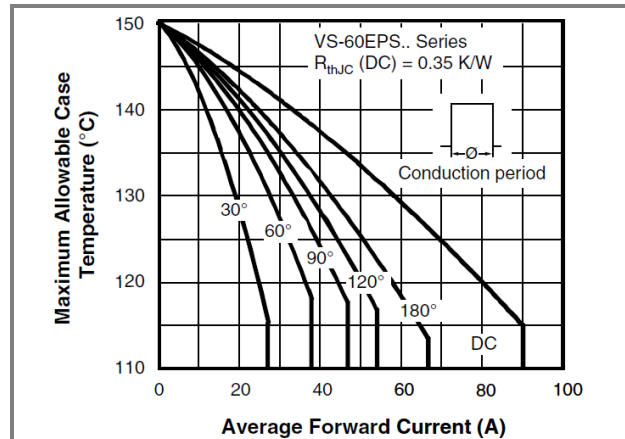


Fig.2 Current Rating Characteristics

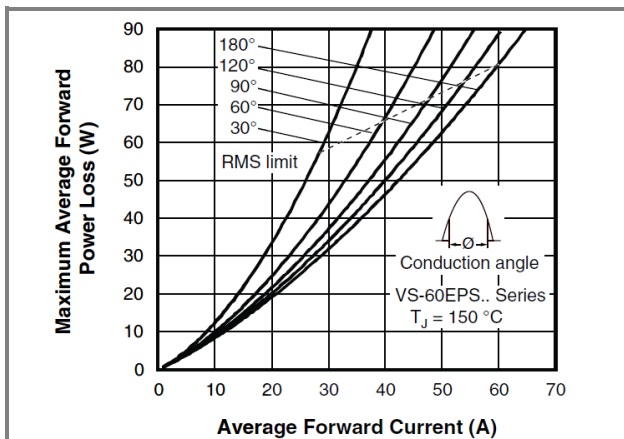


Fig.3 Forward Power Loss Characteristics

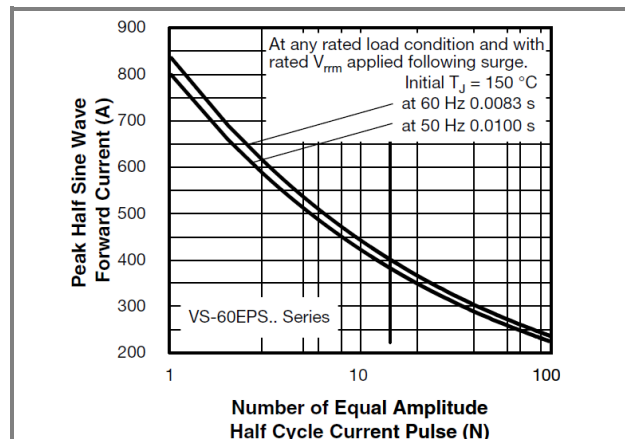


Fig.4 Maximum Non-Repetitive Surge Current

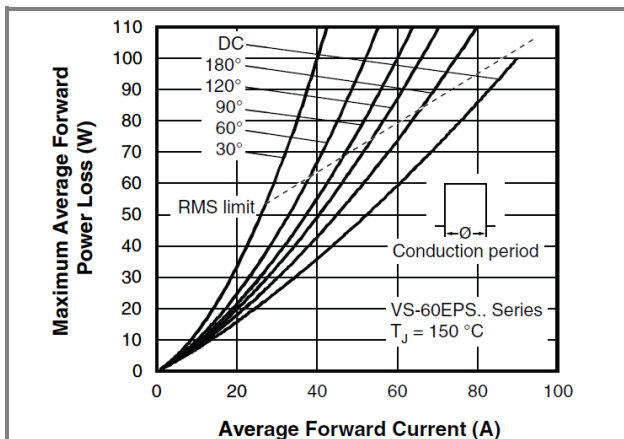


Fig.5 Forward Power Loss Characteristics

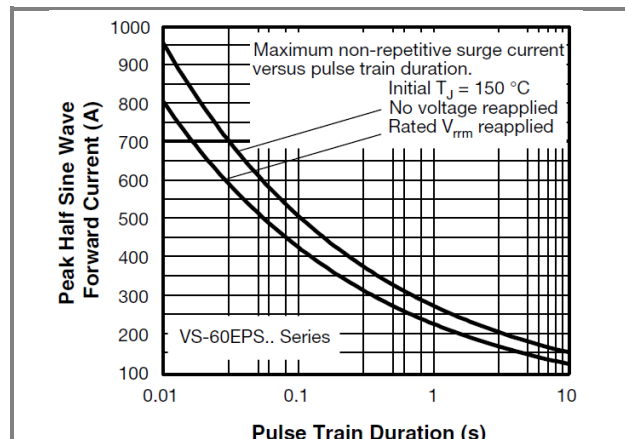


Fig.6 Maximum Non-Repetitive Surge Current

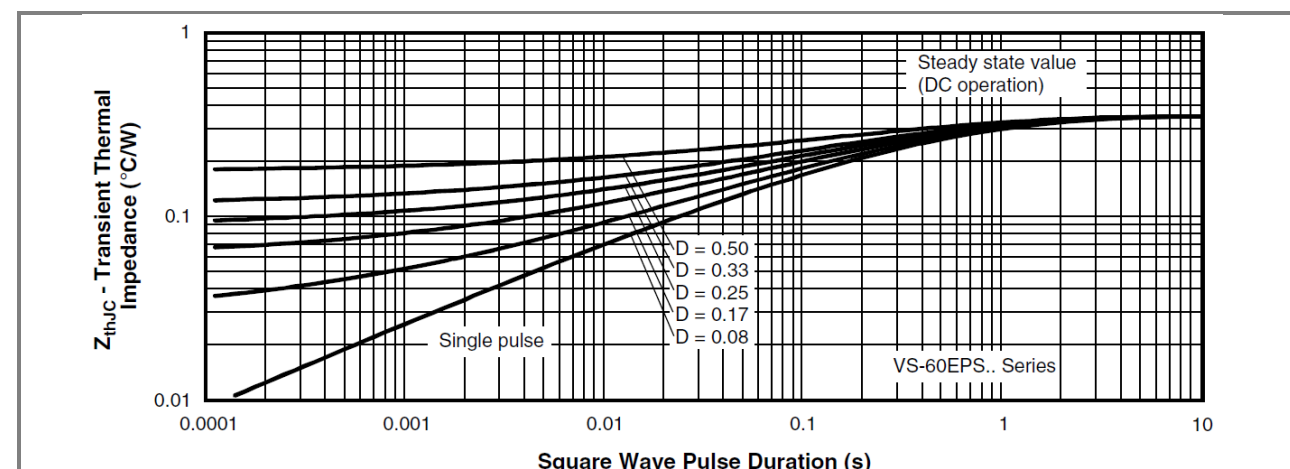


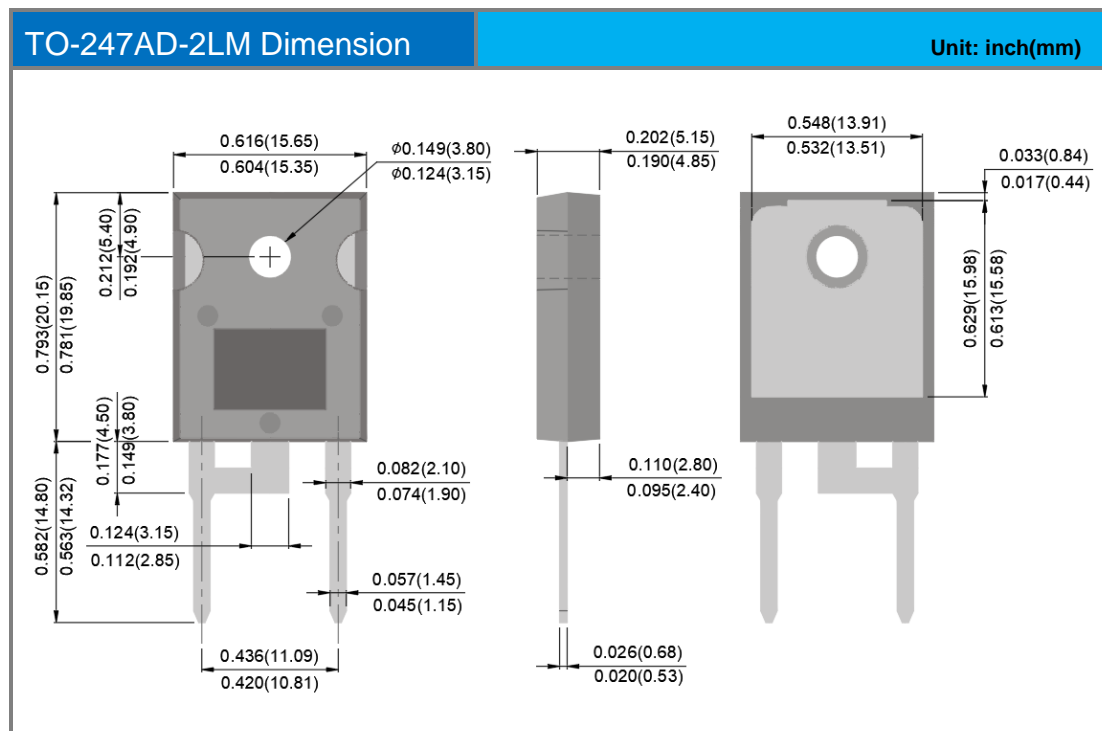
Fig.7 Thermal Impedance ZthJC Characteristics

# PGR6016PT

## Product and Packing Information

Part No.	Package Type	Packing Type	Marking
PGR6016PT	TO-247AD-2LM	30 pcs / Tube	PGR6016PT

## Packaging Information



## PGR6016PT

### Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.