

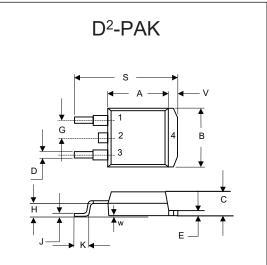
#### Features

- Glass Passivated Chip Junction
- High Forward Surge Capability
- Lead Free Finish/RoHS Compliant (Note 1)("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 2)
- Moisture Sensitivity Level 1

# 30 Amp General Purpose Rectifier 1600 Volts

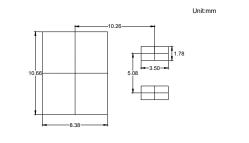
# Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value	Unit	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>			
Working Peak Reverse Voltage	V <sub>RWM</sub>	1600	V	
DC Blocking Voltage	V <sub>R</sub>			
RMS Reverse Voltage	V <sub>RMS</sub>	1120	V	
Average Rectified Forward Current	I <sub>F(AV)</sub>	30	А	
n-Repetitive Peak Surge rrent @8.3ms Half Sine Wave		275	٨	
Non-Repetitive Peak Surge Current @1ms Square Wave	- I <sub>FSM</sub>	550	A	
Current Squared Time @ 1ms≤t≤8.3ms	l <sup>2</sup> t	313	A <sup>2</sup> s	



DIMENSIONS					
DIM	INCHES		MM		NOTE
DIN	MIN	MAX	MIN	MAX	NOTE
А	0.331	0.370	8.40	9.40	
В	0.378	0.417	9.60	10.60	
С	0.165	0.189	4.20	4.80	
D	0.027	0.037	0.68	0.94	
Е	0.045	0.055	1.14	1.40	
G	0.	0.10		2.54	
Н	0.096	0.134	2.43	3.40	
J	0.011	0.025	0.28	0.64	
Κ	0.071	0.131	1.80	3.32	
S	0.575	0.625	14.60	15.87	
V	0.042	0.058	1.07	1.47	
W	0.000	0.010	0.00	0.25	

#### Suggested Solder Pad Layout



### Internal Structure

Pin	Description	Simplified Outline	Graphic Symbol
1	NC		
2,4	Cathode	MCC. GPB3016	10
3	Anode		• 0 2&4
			3 0

#### Note:

High temperature solder exemption applied, see EU directive annex 7a.
Halogen free "Green" products are defined as those which contain <900ppm bromine,</li>

<900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.



# Thermal characteristics

Symbol	Parameter	Conditions	Min	Тур	Мах	Unit
TJ	Operating Junction Temperature Range		-55		150	°C
T <sub>stg</sub>	Storage Temperature Range		-55		150	°C
Rth <sub>(J-C)</sub>	Thermal Resistance from Junction to Case			2		°C/W

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Тур	Max	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =30A;T <sub>J</sub> =25°C		1.20	1.30	V
Reverse Current	I <sub>R</sub>	at Rated V <sub>R</sub> ;T <sub>J</sub> =25°C at Rated V <sub>R</sub> ;T <sub>J</sub> =125°C			5 500	uA
Junction Capacitance	CJ	V <sub>R</sub> =4V;f=1MHz;T <sub>J</sub> =25°C		60		pF



# **Curve Characteristics**

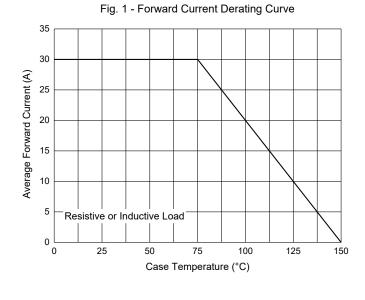
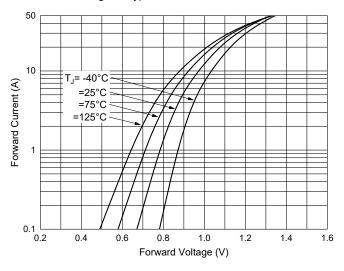
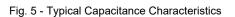
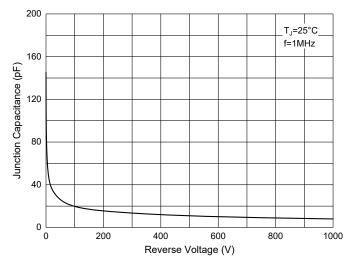


Fig. 3 - Typical Forward Characteristics







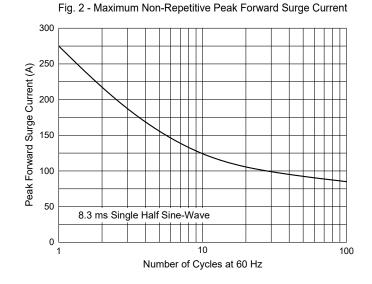
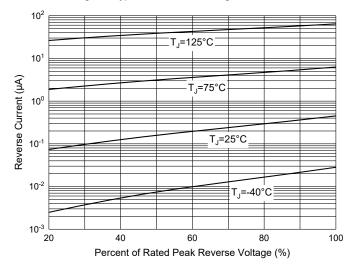


Fig. 4 - Typical Reverse Leakage Characteristics





### **Ordering Information**

Device	Packing		
Part Number-TP	Tape&Reel:800pcs/Reel		
Part Number-BP	Tube:5Kpcs/Ctn		

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