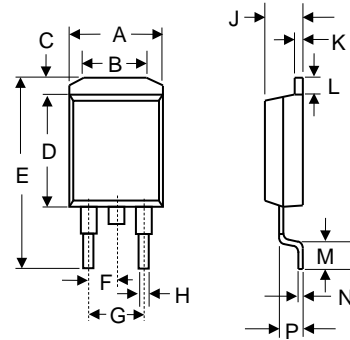


Features

- * Ideal for automated placement
- * High efficiency, low VF
- * High surge current capability
- * High reliability
- * Low power loss



RoHS
COMPLIANT



Mechanical Data

- * Case: TO-263AB (D²PAK)
- * Molding compound, UL flammability classification rating 94V-0
Moisture sensitivity level: level 1, per J-STD-020
- * Terminal: Matte tin plated leads, solderable per JESD22-B102
Meet JESD 201 class 1A whisker test
- * Polarity: As marked

D ² -PAK(TO-263AB)				
DIM.	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.380	0.411	9.65	10.45
B	0.245	---	6.22	---
C	0.045	0.055	1.14	1.40
D	0.320	0.360	8.13	9.14
E	0.591	0.624	15.00	15.85
F	0.095	0.105	2.41	2.67
G	0.195	0.205	4.95	5.20
H	0.027	0.037	0.686	0.940
J	0.160	0.190	4.06	4.83
K	0.045	0.055	1.14	1.40
L	0.047	0.055	1.19	1.40
M	0.090	0.110	2.29	2.79
N	0.014	0.021	0.36	0.53
P	0.110	0.140	2.79	3.56

Maximum Ratings and Electrical Characteristics (T_A=25°C unless otherwise noted)

PARAMETER		SYMBOL	UGS5J	UNIT
Maximum repetitive peak reverse voltage		V _{RRM}	600	V
Maximum RMS voltage		V _{RMS}	420	V
Maximum DC blocking voltage		V _{DC}	600	V
Maximum average forward rectified current		I _{F(AV)}	5	A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load		I _{FSM}	65	A
Maximum instantaneous forward voltage	I _F =5A	V _F	2.0 1.8	V
Maximum reverse current @ rated VR	T _J =25°C	I _R	20	μA
	T _J =125°C		250	
Maximum reverse recovery time (Note 1)		t _{rr}	20	ns
Typical thermal resistance		R _{θJC}	3.0	°C/W
Operating junction temperature range		T _J	- 55 to +150	°C
Storage temperature range		T _{STG}	- 55 to +150	°C

Note 1: Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

Ratings and Characteristic Curves

FIG.1 FORWARD CURRENT DERATING CURVE

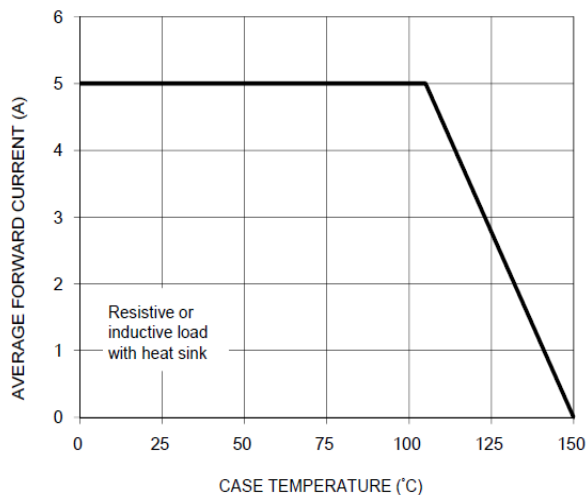


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

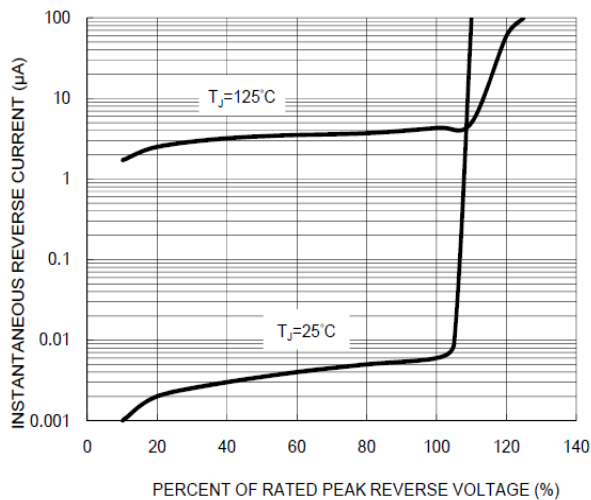


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

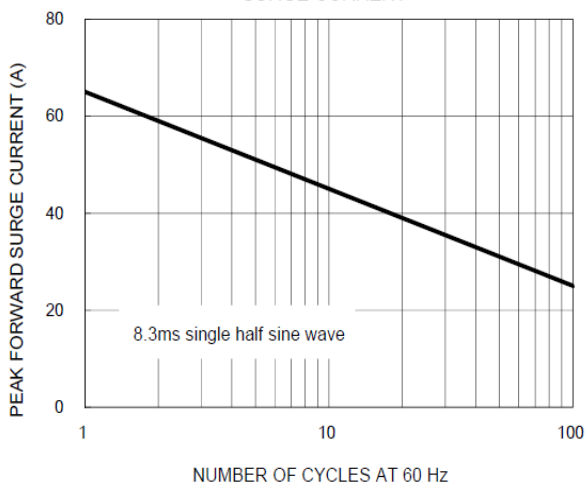


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

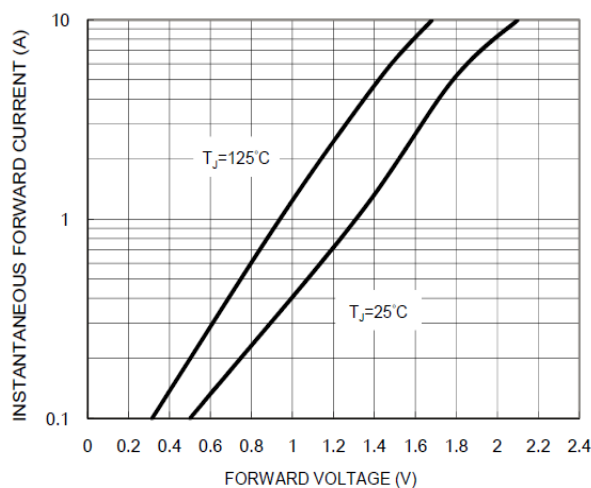
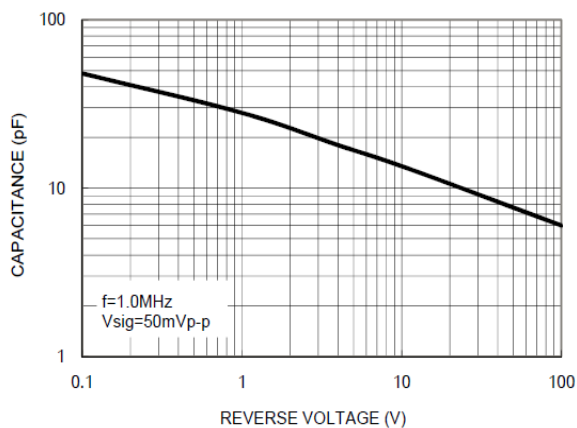


FIG. 5 TYPICAL JUNCTION CAPACITANCE





UGS5J

Surface Mount Ultra Fast Rectifier

Ordering Information

Part No.	Package	Packing Code	Packing
UGS5J	D ² PAK	T	50pcs/Tube

Disclaimer

Specifications of the products displayed herein are subject to change without notice. JGD or anyone on its behalf, assumes no responsibility or liability for any errors in accuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in JGD's terms and conditions of sale for such products, JGD assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of JGD products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify JGD for any damages resulting from such improper use or sale.