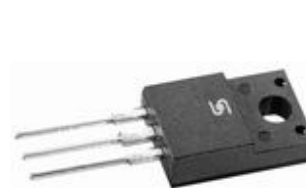


## Features

- ✧ High efficiency, low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss
- ✧ For use in low voltage, high frequency inverter, Freewheeling, and polarity protection application
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode



## Mechanical Data

- ✧ Case: ITO-220AB
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Terminals: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: As marked
- ✧ High temperature soldering guaranteed: 260°C/10 seconds.
- ✧ Weight: 2.24 grams

## Ordering Information

Part No.	Package	Packing	Packing code	Packing code (Green)
UGF1004G	ITO-220AB	50 / TUBE	D0	D0G

## Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	UGF1004G	UGF1005G	UGF1006G	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	200	300	400	V
Maximum RMS Voltage	$V_{RMS}$	140	210	280	V
Maximum DC Blocking Voltage	$V_{DC}$	200	300	400	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	10			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	70			A
Maximum Instantaneous Forward Voltage (Note 1) @ 5 A / $T_A=25^{\circ}C$	$V_F$	0.95	1.25		V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A=25^{\circ}C$ / $T_A=125^{\circ}C$	$I_R$	10 / 100			uA
Maximum Reverse Recovery Time (Note 2)	$T_{rr}$	25			nS
Typical Thermal Resistance	$R_{\theta JC}$	6			$^{\circ}C/W$
Operating Temperature Range	$T_J$	- 55 to + 175			$^{\circ}C$
Storage Temperature Range	$T_{STG}$	- 55 to + 175			$^{\circ}C$

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note 2: Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$

RATINGS AND CHARACTERISTIC CURVES (UGF1004G THRU UGF1006G)

FIG.1 FORWARD CURRENT DERATING CURVE

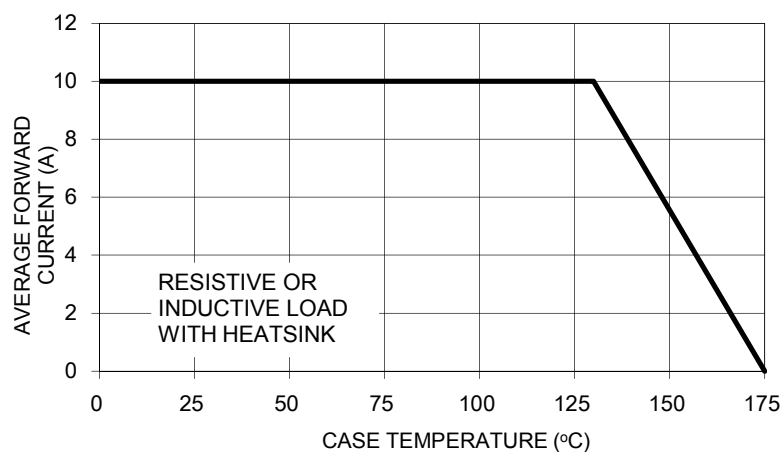


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

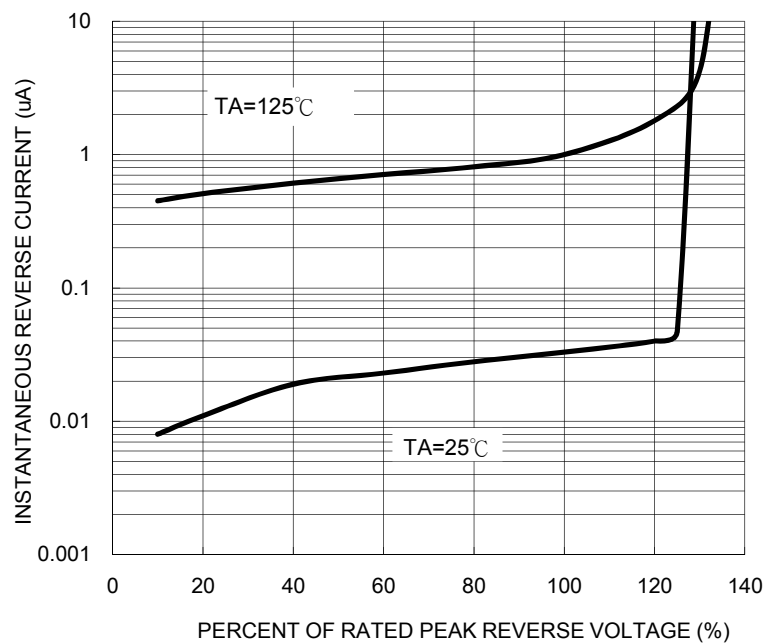


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

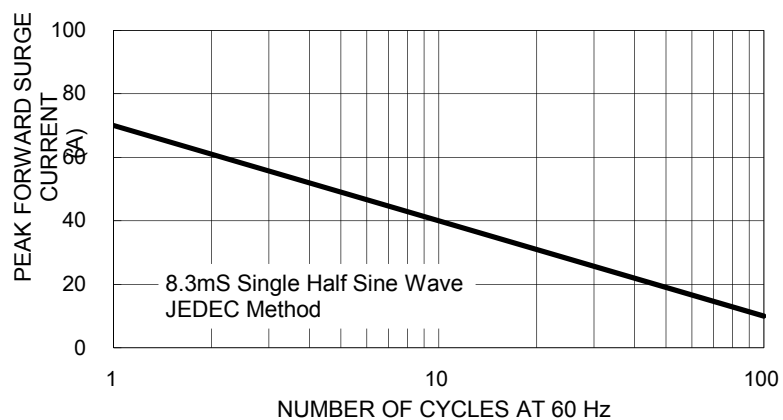


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

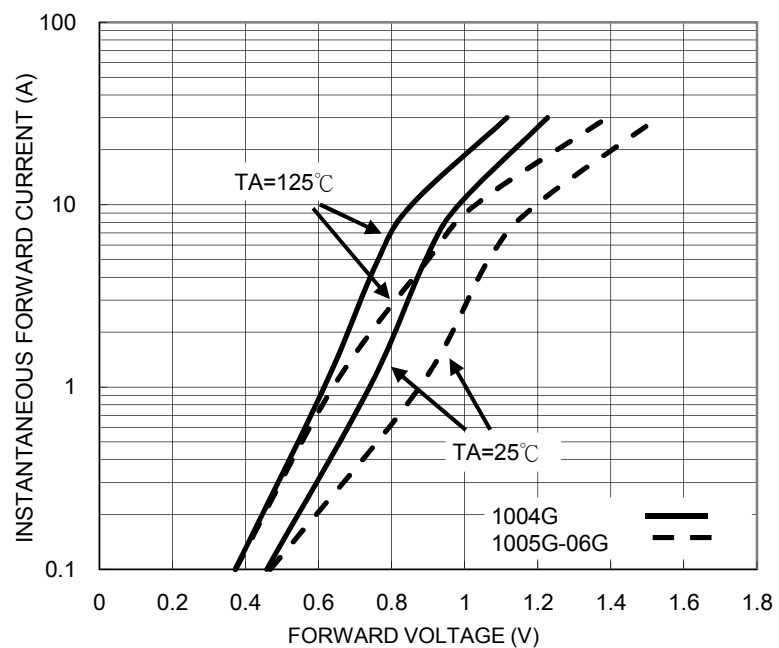
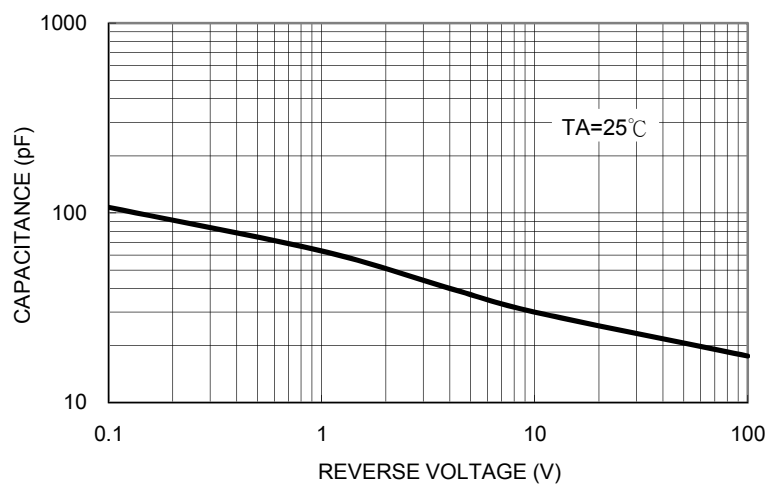


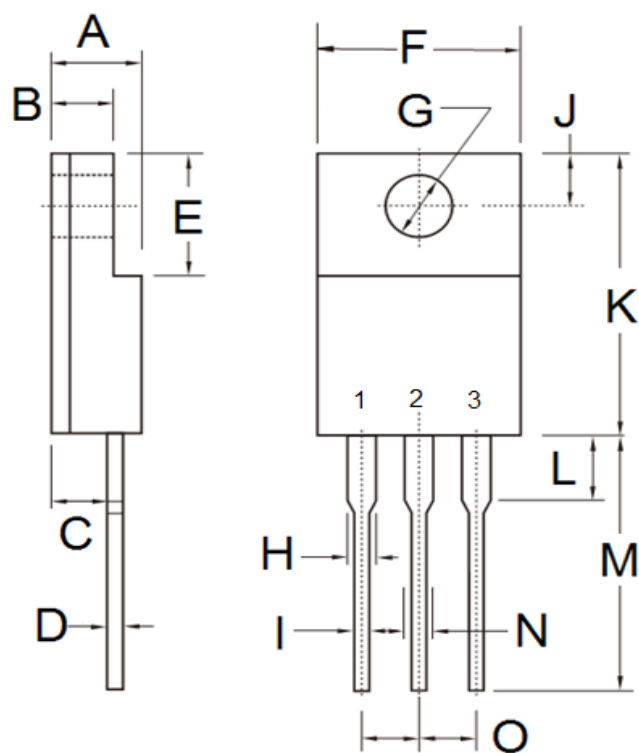
FIG. 5 TYPICAL JUNCTION CAPACITANCE



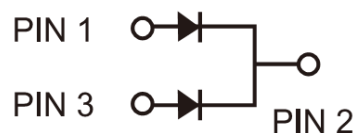
**Ordering information**

Part No.	Package	BULK Packing	Packing code	Packing code (Green)
UGF100xG	ITO-220AB	50 / TUBE	C0	C0G
	ITO-220AB	50 / TUBE	D0	D0G

Note: "x" is Device Code from "4" thru "6".

**Dimensions**


DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	4.30	4.70	0.169	0.185
B	2.50	3.16	0.098	0.124
C	2.30	2.96	0.091	0.117
D	0.46	0.76	0.018	0.030
E	6.30	6.90	0.248	0.272
F	9.60	10.30	0.378	0.406
G	3.00	3.40	0.118	0.134
H	0.95	1.45	0.037	0.057
I	0.50	0.90	0.020	0.035
J	2.40	3.20	0.094	0.126
K	14.80	15.50	0.583	0.610
L	-	4.10	-	0.161
M	12.60	13.80	0.496	0.543
N	-	1.80	-	0.071
O	2.41	2.67	0.095	0.105


**Marking Diagram**


P/N = Specific Device Code  
 G = Green Compound  
 YWW = Date Code