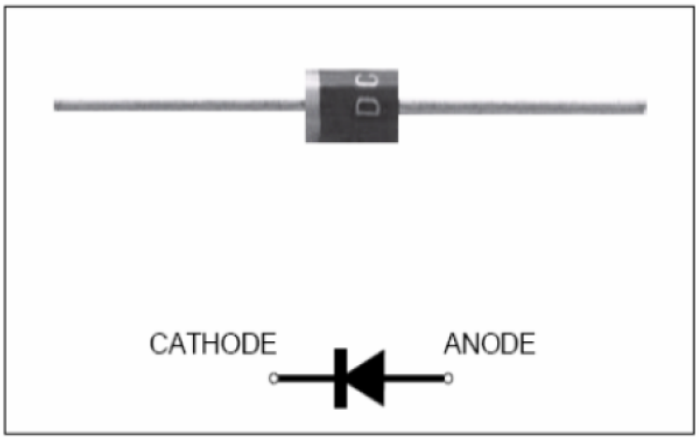
UGP15A thru UGP15K

1.FEATURES

Glass Passivated Junction
Ultra Fast Rectifiers
Reverse Voltage 50 to 800V
Forward Current 1.5A

* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
* High temperature metallurgically bonded construction
* Cavity-free glass passivated junction
* Capable of meeting environmental standards of MIL-S-19500
* For use in high frequency rectifier circuits
* Fast switching for high efficiency
* Typical IR less than 0.2μA
* High temperature soldering guaranteed: 260°C/10 seconds
* 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



We declare that the material of product compliance with RoHS requirements.

2.Mechanical Data

Case: JEDEC DO-15, molded plastic over glass body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.015 oz., 0.40g
Handling precautin:None

3.Electrical Characteristic

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	UGP 15A	UGP 15B	UGP 15D	UGP 15F	UGP 15G	UGP 15J	UGP 15K	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	300	400	600	800	V
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	420	560	V
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	600	800	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T_A = 55°C	IF(AV)	1.5							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50							A
Maximum full load reverse current, full cycle average,0.375"(9.5mm) lead lengths at T_A = 55° C	IR(AV)	100							μA
Typical thermal resistance (Note 2)	RθJA	45							°C/W
Operating junction and storage temperature range	TJ, TSTG	–50 to +150							°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	UGP 15A	UGP 15B	UGP 15D	UGP 15F	UGP 15G	UGP 15J	UGP 15K	Unit
Maximum instantaneous forward voltage at 1.5A	V_F	0.95			1.25		1.7	2.2	V
Maximum DC reverse current TA = 25°C at rated DC blocking voltage TA = 125°C	IR	5.0 100							μA
Typical reverse recovery time (Note 1)	trr	35							ns
Typical junction capacitance at 4.0V, 1MHz	CJ	35							PF

NOTES:
1. IF = 0.5A, IR = 1.0A, IRR = 0.25A
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

4.Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

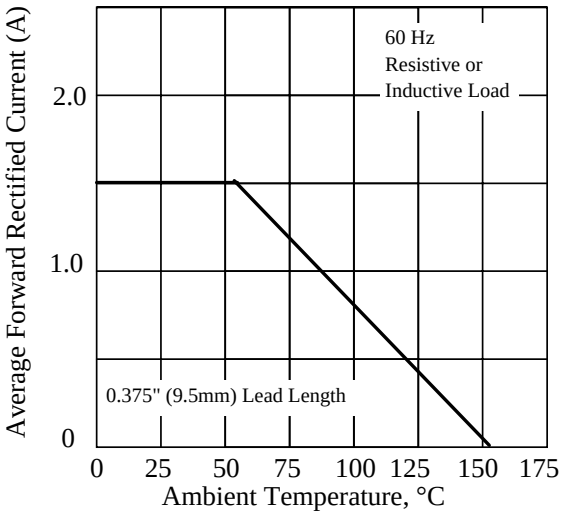


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

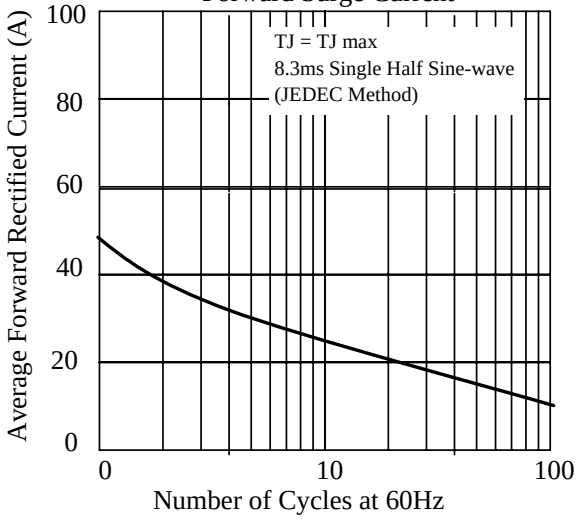


Fig 3. – Typical Instantaneous Forward Characteristics

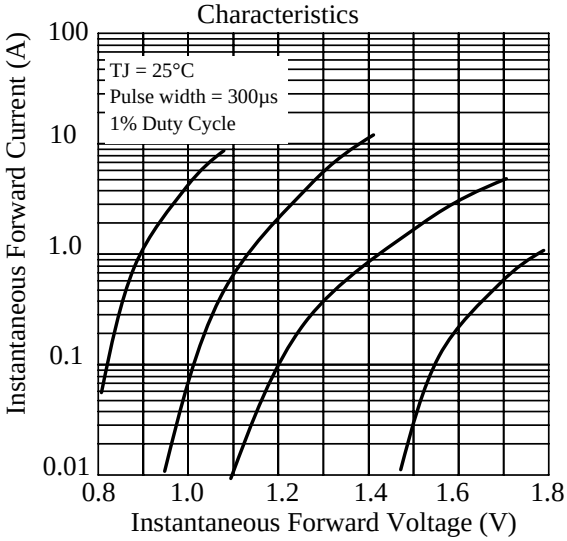


Fig 4. – Typical Reverse Characteristics

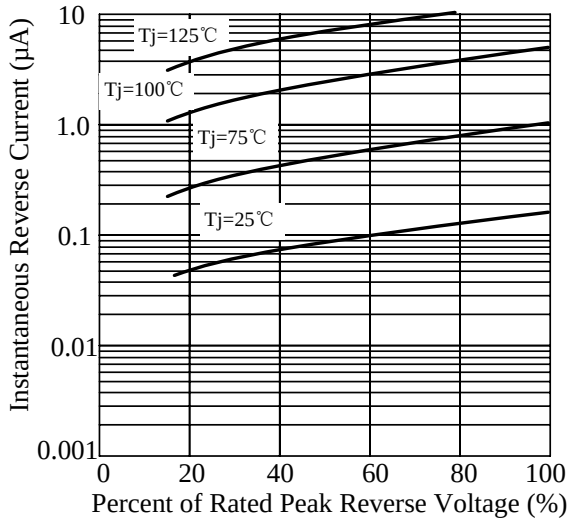


Fig 5. – typical transient thermal impedance

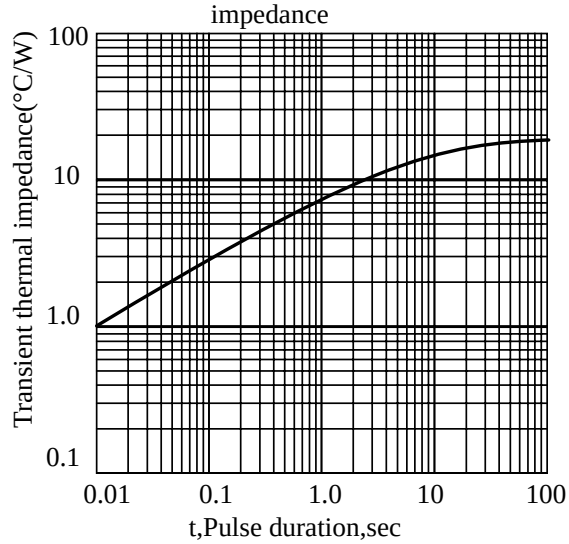
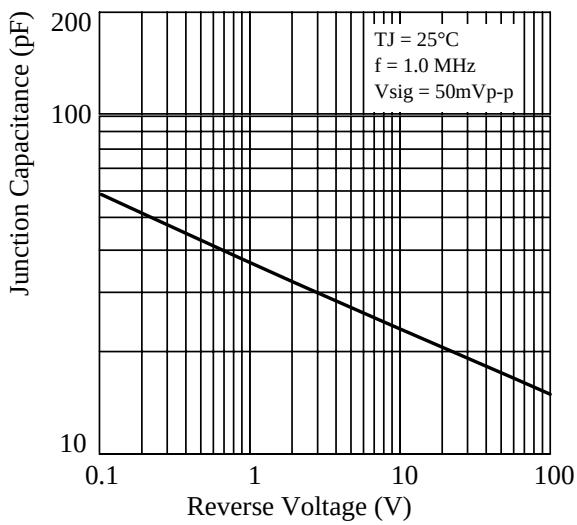
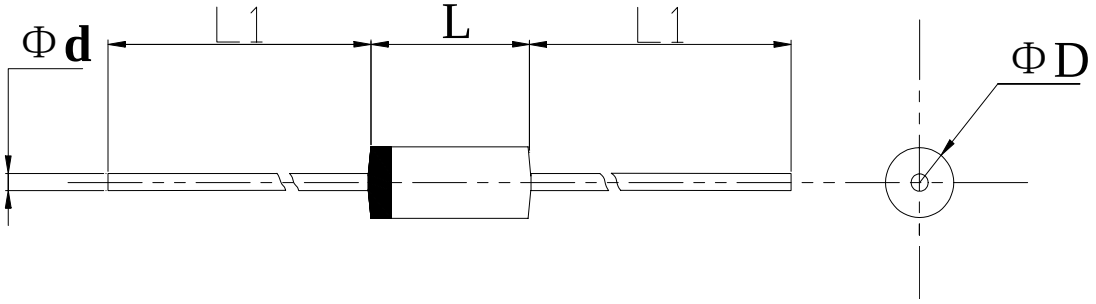


Fig 6. – Typical Junction Capacitance



5.Package Dimensions in inches and (millmeters)

Package outline



Dimensions				
	inches		mm	
	Min.	Max.	Min.	Max.
L	0.230	0.300	5.8	7.6
L1	1.0	-	25.4	-
ΦD	0.104	0.140	2.6	3.6
Φd	0.028	0.034	0.7	0.9

Note:
DO-15
molded plastic case
The marking band indicates the cathode