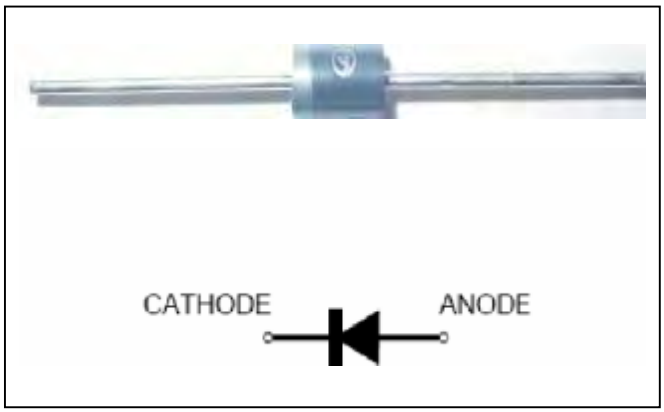
JXND ELECTRONICS CO.,LTD

Glass Passivated Junction Super Fast Rectifiers 1E1G thru 1E5G

Reverse Voltage 50 to 600V Forward Current 1.0A

Feature & Dimensions

* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
* High temperature metallurgically bonded construction
* Glass passivated junction
* Capable of meeting environmental standards of MIL-S-19500
* 1.0 A operation at TA=55°C with no thermal runaway
* For use in high frequency rectifier circuits
* Fast switching for high efficiency
* Typical IR less than 1.0μA
* High temperature soldering guaranteed: 350°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

Mechanical Data

Case: JEDEC R-1, molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.0063 oz., 0.167 g
Handling precautin:None

1.Electrical Characteristic

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

Parameter Symbol	symbol	1E1G	1E2G	1E2AG	1E3G	1E3AG	1E4G	1E5G	Unit
device marking code		1E1G	1E2G	1E2AG	1E3G	1E3AG	1E4G	1E5G	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T_A = 55°C	IF(AV)	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							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	50							°C/W
Operating junction and storage temperature range	TJ, TSTG	–50to +150							°C

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

Parameter Symbol	symbol	1E1G	1E2G	1E2AG	1E3G	1E3AG	1E4G	1E5G	Unit
Maximum instantaneous forward voltage at 1.0A		0.95				1.25		1.7	V
Maximum DC reverse current TA = 25°C at rated DC blocking voltage TA = 100°C	IR	5.0 150							μA
Typical reverse recovery time (Note 1)	trr	35							ns
Typical junction capacitance at 4.0V, 1MHz	CJ	17							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

2. Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

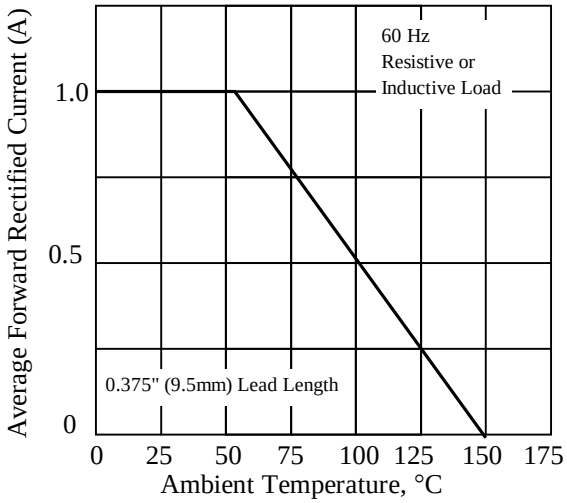


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

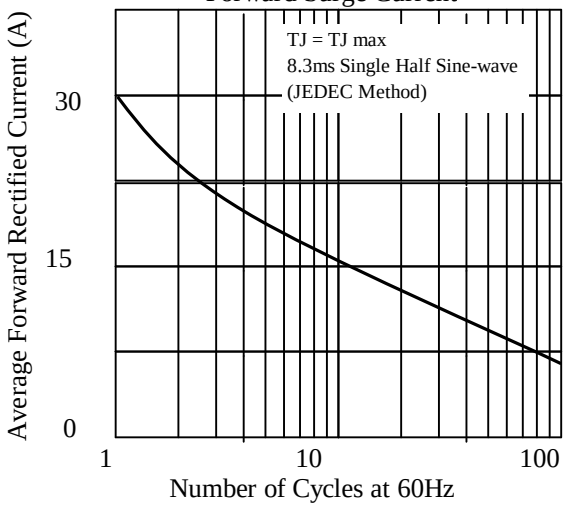


Fig 3. – Typical Instantaneous Forward Characteristics

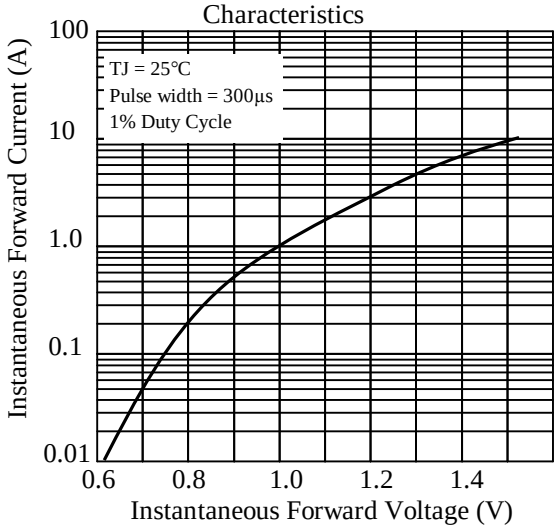


Fig 4. – Typical Reverse Characteristics

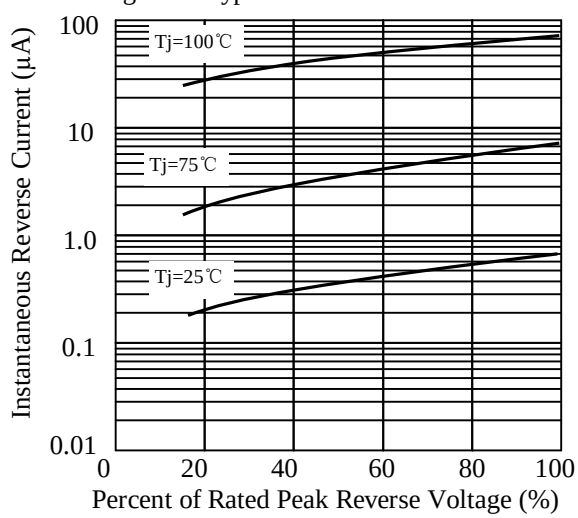


Fig 5. – typical transient thermal impedance

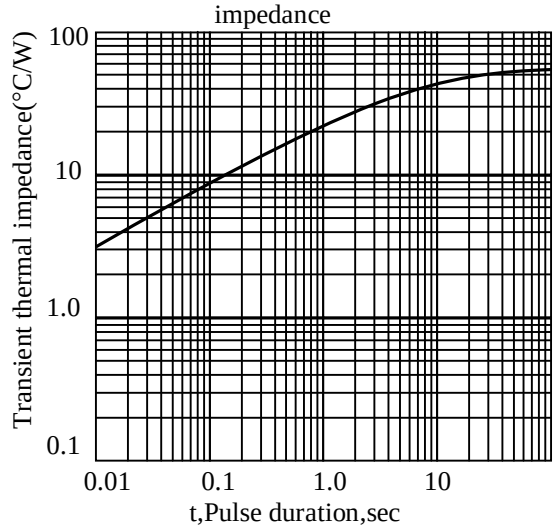
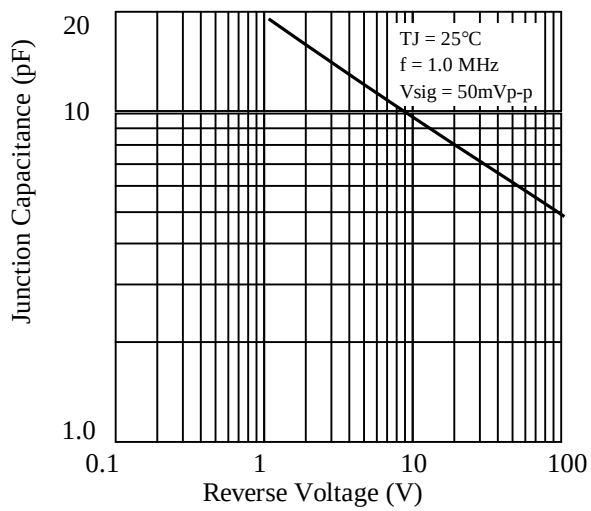
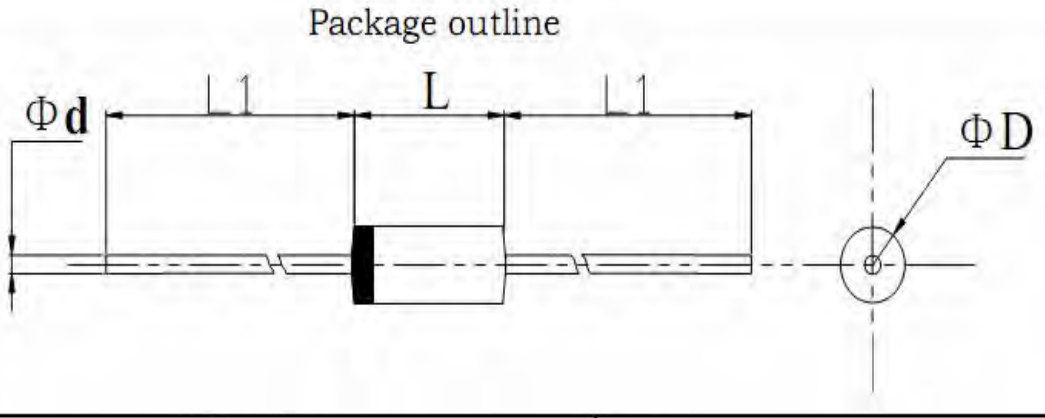


Fig 6. – Typical Junction Capacitance



3. dimension:



Dimensions				
	inches		mm	
	Min.	Max.	Min.	Max.
L	0.106	0.126	2.7	3.2
L1	0.787	-	20.0	-
ΦD	0.091	0.102	2.3	2.6
Φd	0.021	0.025	0.55	0.65

Note:
R-1
molded plastic case
The marking band indicates the cathode