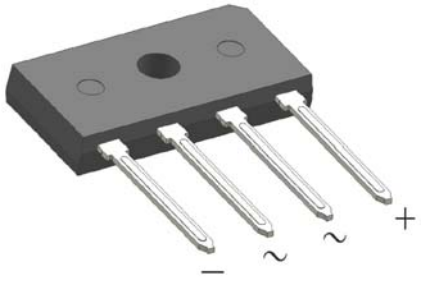
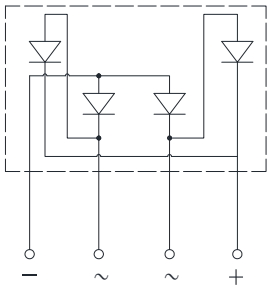
Fast Recovery Bridge Rectifiers





Features

- UL recognition, file #E230084
- Glass passivated chip junction
- Thin single in-line package
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

General purpose use in AC/DC bridge full wave rectification for monitor, TV, printer, power supply, switching mode power supply, adapter, audio equipment, and home appliances applications.

Mechanical Data

- **Package**: JC
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, Halogen free
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

■Maximum Ratings (T_a=25℃ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	RD4JC80	RD4JC100
Device marking code				RD4JC80	RD4JC100
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	V	800	1000
Maximum RMS Voltage		V_{RMS}	V	560	700
Maximum DC blocking Voltage		V_{DC}	V	800	1000
Average rectified output current @60Hz sine wave, R-load	With heatsink T_C =135℃	I_O	A	4.0	
	Without heatsink T_a =25℃			1.5	
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃		I_{FSM}	A	135	
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃				270	
Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode		I^2t	A^2s	75.6	
Storage temperature		T_{stg}	℃	-55 ~ +150	
Junction temperature		T_j	℃	-55 ~ +150	
Dielectric strength @ Terminals to case, AC 1 minute		V_{dis}	KV	2	
Mounting torque @Recommend torque：5kg·cm		Tor	kg·cm	8	

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	RD4JC80	RD4JC100
Maximum reverse recovery time	t_{rr}	ns	I_F=0.5A,I_R=1.0A, I_{rr}=0.25A	500	
Maximum instantaneous forward voltage drop per diode	VF	V	I_{FM}=2.0A	1.3	
Maximum DC reverse current at rated DC blocking voltage per diode	IR	μA	T_j =25℃	5	
			T_j =125℃	100	
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	14	

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	RD4JC80	RD4JC100
Thermal resistance	Between junction and ambient, Without heatsink	RθJ-A	℃/W	35.0	
	Between junction and case, With heatsink	RθJ-C		1.5	

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

■Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
RD4JC80 ~RD4JC100	B1	Approximate 2	25	625	5000	Tube
RD4JC80 ~RD4JC100	A1	Approximate 2	500	500	5000	Box

■ Characteristics (Typical)

FIG1:Io-Tc Curve

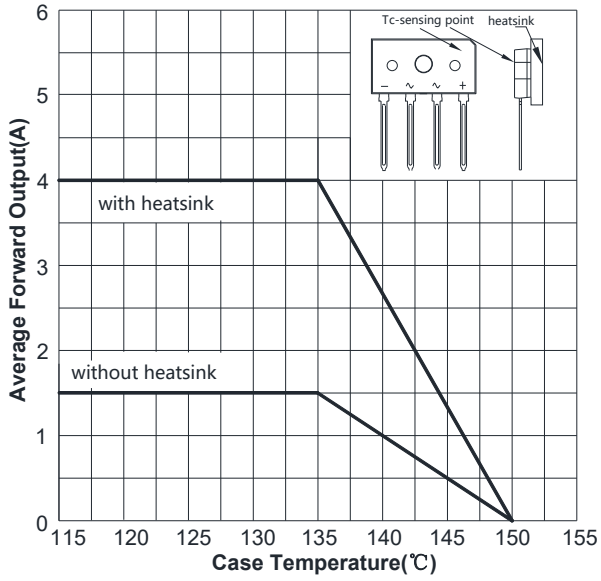


FIG2:Surge Forward Current Capability

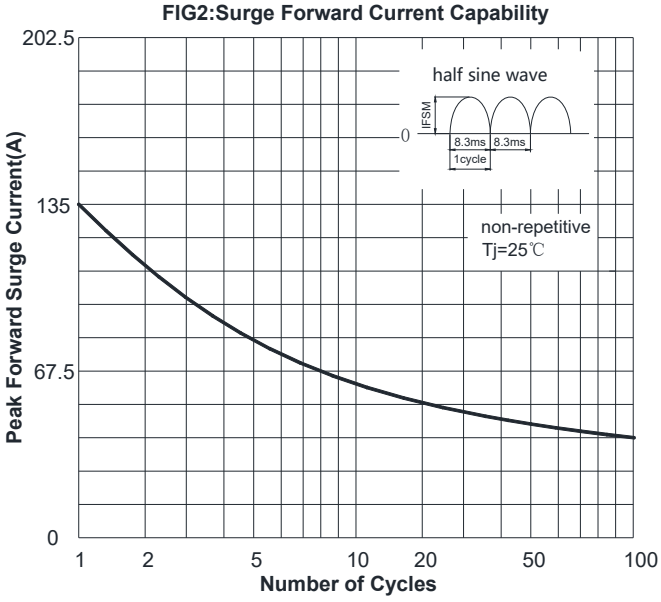


FIG3: Typical Forward Voltage

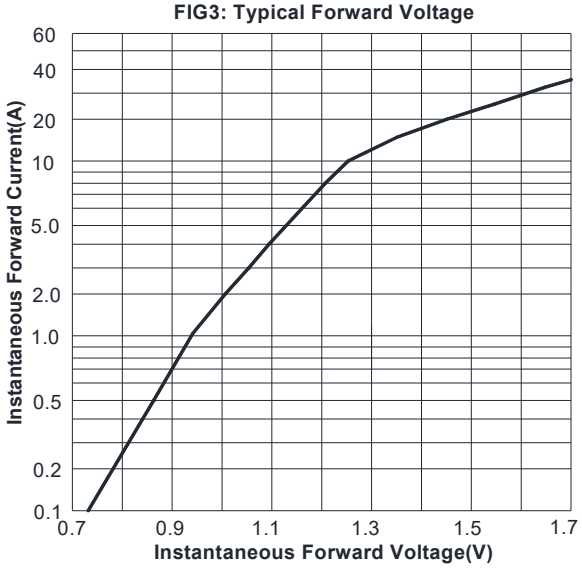


FIG4:Typical Reverse Characteristics

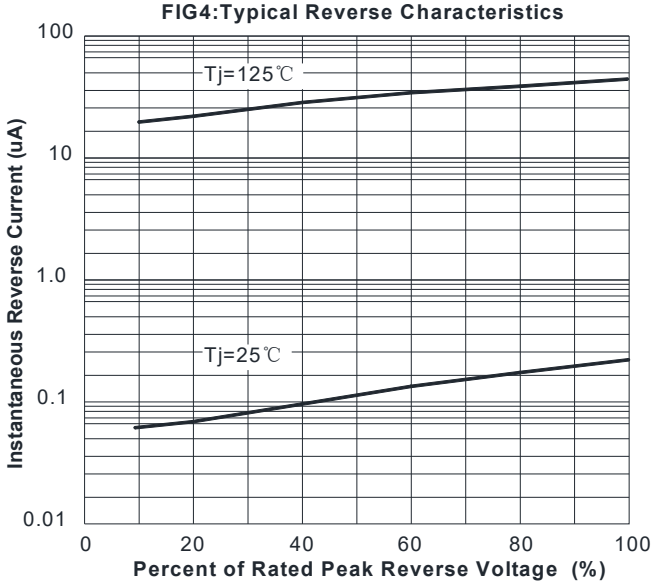
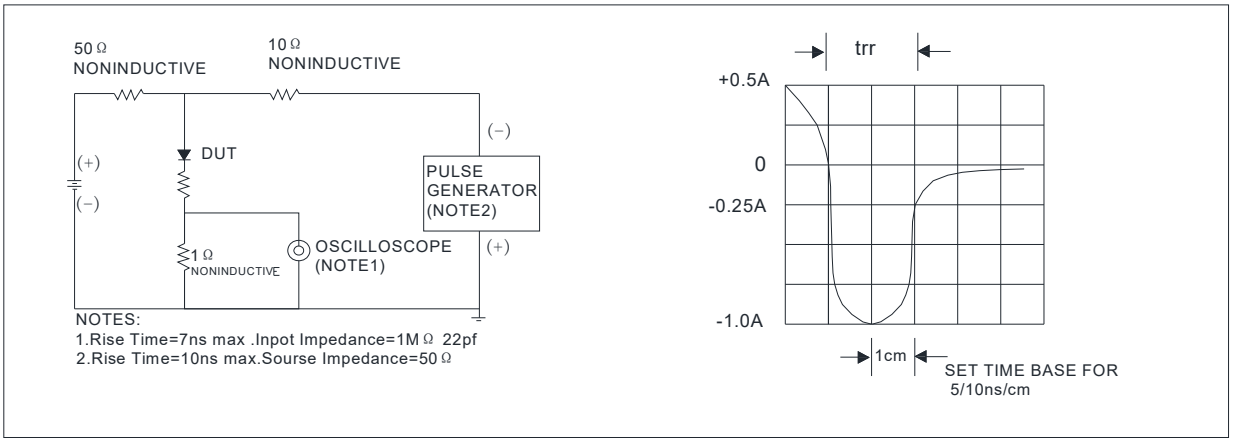
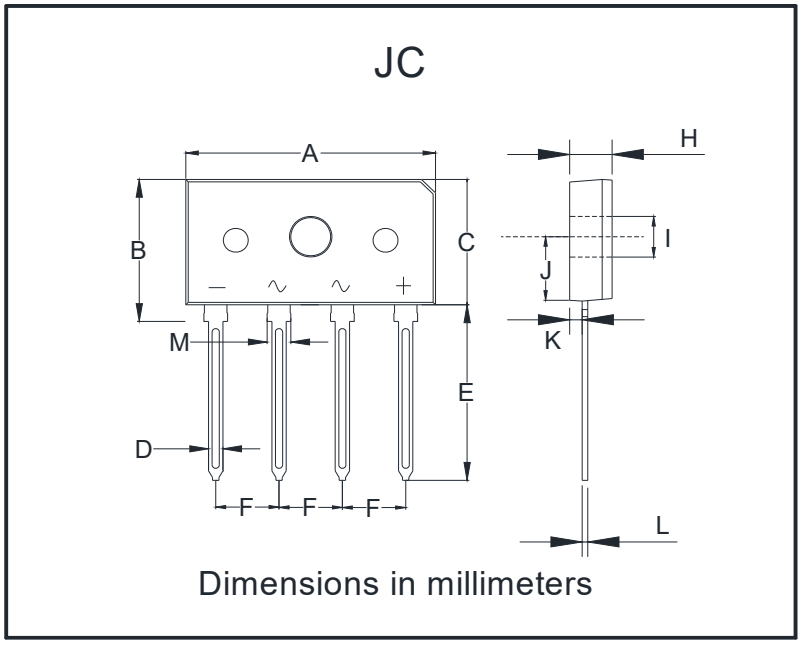


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ Outline Dimensions



JC		
Dim	**Min**	**Max**
A	19.60	20.40
B	11.50	12.30
C	10.10	10.90
D	1.00	1.30
E	14.20	15.00
F	4.88	5.28
H	3.10	3.70
I	2.95	3.35
J	5.30	5.90
K	0.70	1.30
L	0.30	0.60
M	1.70	2.10

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website http:// www.21yangjie.com , or consult your nearest Yangjie's sales office for further assistance.