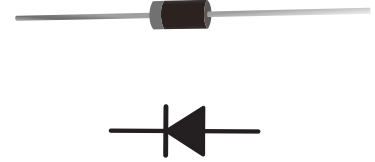


Fast Recovery Rectifiers

Features

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Fast Recovery times for high efficiency
- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0
- Lead free in comply with EU RoHS 2011/65/EU directives



Mechanical Data

- Case: DO-15
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: color band denotes cathode end

Ordering Information

Part Number	Shipping	Packing Type
FR201 THRU FR207	3000PCS/Box	Box

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%.

Parameter	Symbols	FR201	FR202	FR203	FR204	FR205	FR206	FR207	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current. 375" (9.5mm) Lead Length @Ta(Fig.1)	$I_{(AV)}$	2.0							A
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	60							A
Maximum instantaneous Forward Voltage at @2.0A	V_F	1.3							V
Maximum DC reverse current at rated DC blocking voltage per	I_R	5.0 100							μA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	150				250	500		nS
Typical Junction Capacitance (Note 2)	C_J	25							pF
Operating and Storage Temperature Range	T_J T_{STG}	-55 to +125 -55 to +150							°C

Note: 1. Measured with $I_F = 0.5A$, $I_R = 1.0A$, $I_{rr} = 0.25A$.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V



Characteristic Curves

Fig.1 Forward Derating Curve

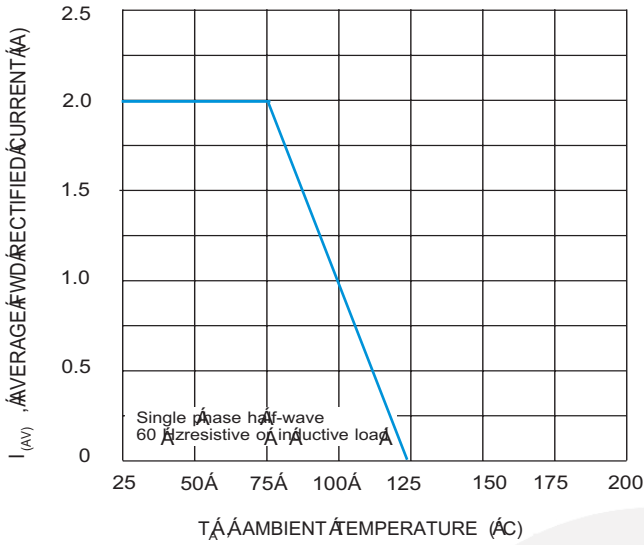


Fig.2 Typical Forward Characteristics

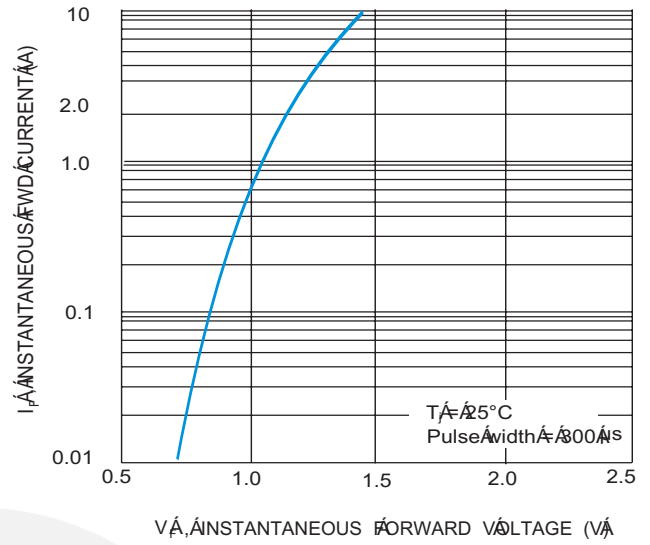


Fig.3 Peak Forward Surge Current

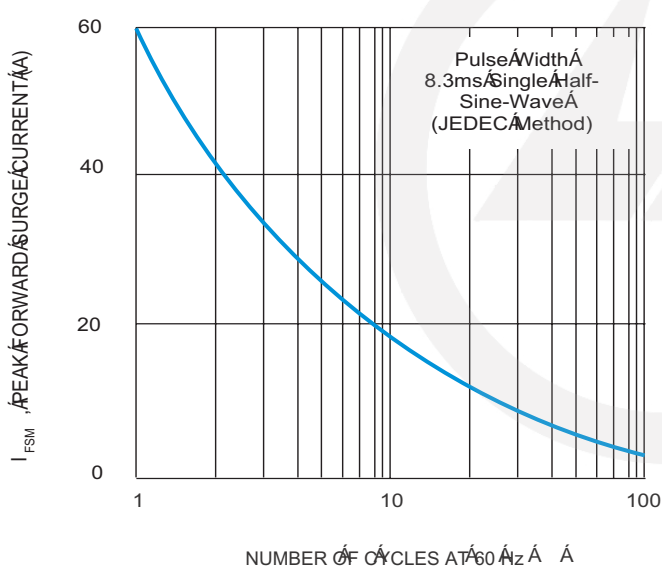


Fig.4 Typical Reverse Characteristics

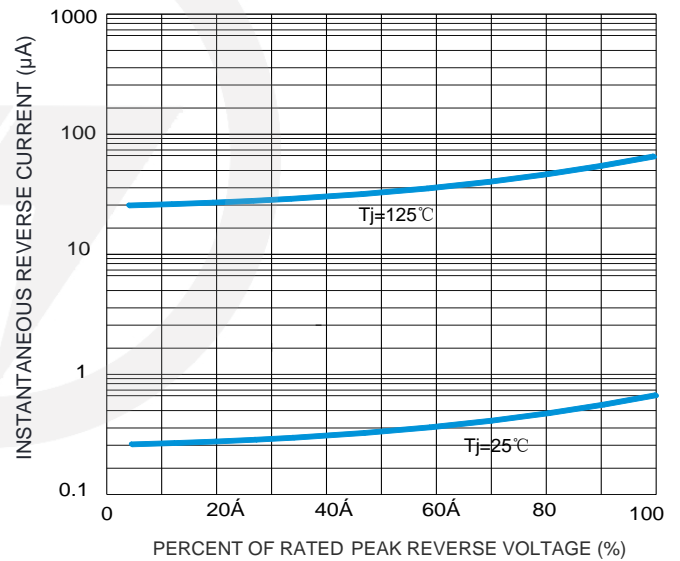
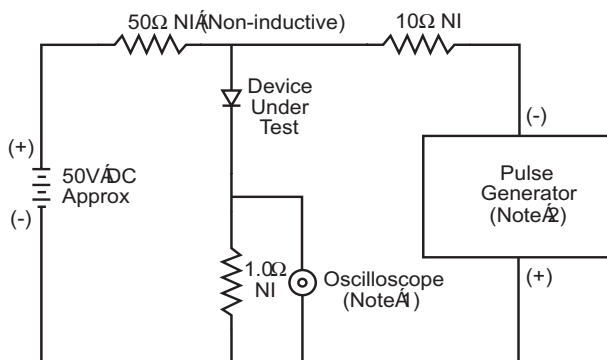
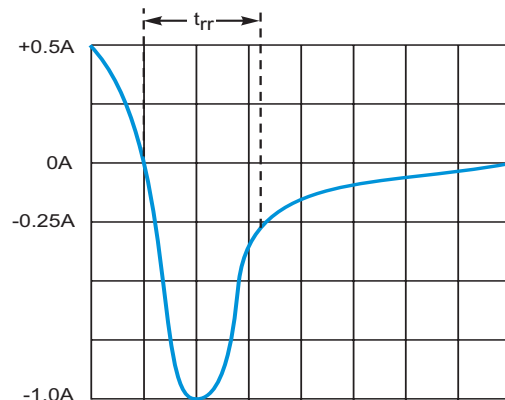


Fig.5 Reverse Recovery Time Characteristic and Test Circuit

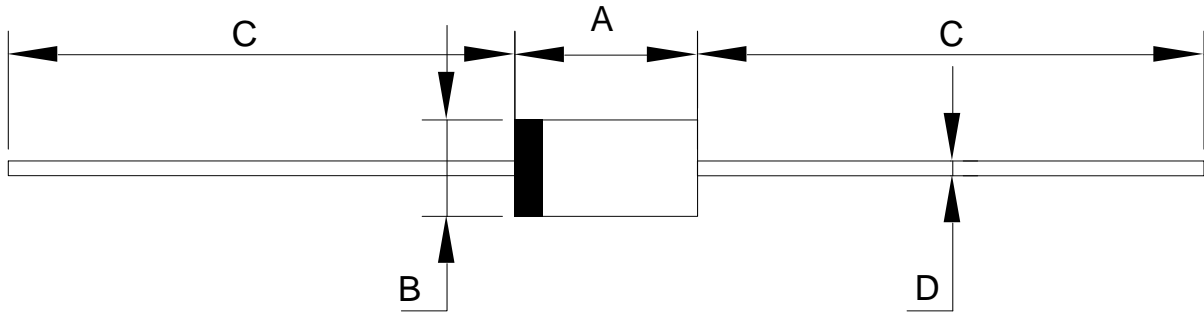


- Notes:
1. Rise Time=7ns max .Input Impedance=1MΩ 22pf
 2. Rise Time=10ns max.Source Impedance=50Ω



Set time base for 5/10ns/cm

DO-15 Package Outline



Marking

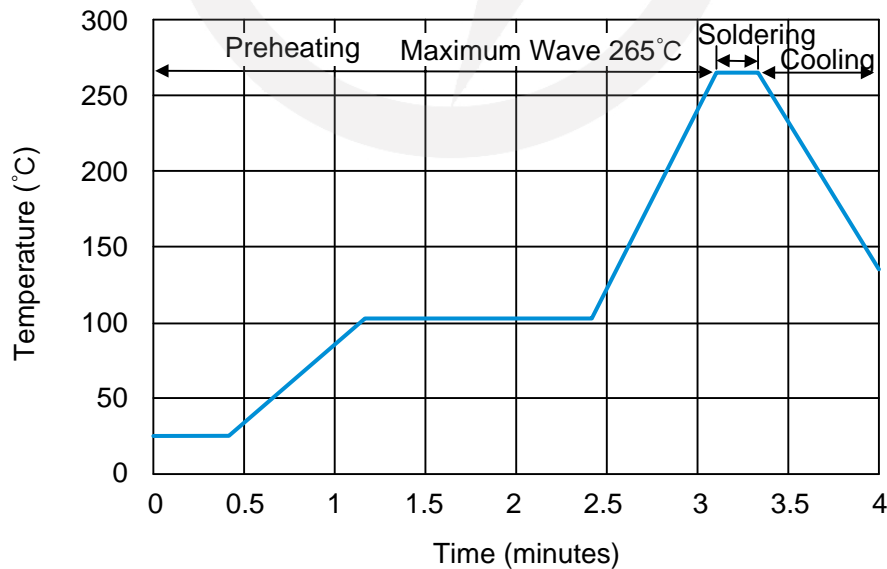
Unit:mm

Type number	Marking code
FR201	FR201
FR202	FR202
FR203	FR203
FR204	FR204
FR205	FR205
FR206	FR206
FR207	FR207

Dim	Min	Max
A	5.80	7.60
B	2.60	3.60
C	25.4 TYP.	
D	0.71	0.87

Recommended Soldering Conditions

Wave Soldering



Item	Conditions
Peak Temperature	265°C
Dipping Time	10 seconds
Soldering	1 time

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Version Update Information

Series NO.	Enactment/Revision Date	Effective Date	Version	Revision content	Revision Reason	Revision Person	Note
01	2024.12.15	2024.12.15	3.0	New File	/	Ding	