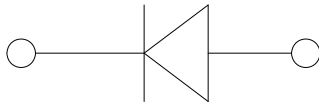
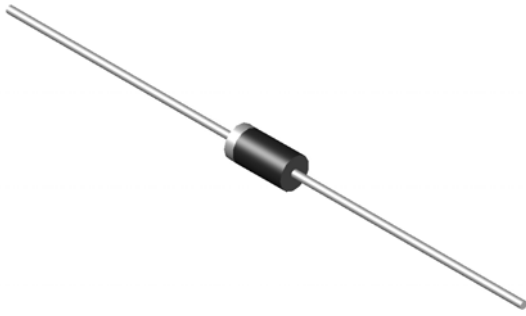


Fast Recovery Rectifier



Features

- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Glass passivated chip junction
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Mechanical Data

- **Package:** DO-204AC(DO-15)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes cathode end

■ Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FR151	FR152	FR153	FR154	FR155	FR156	FR157
Device marking code			FR151	FR152	FR153	FR154	FR155	FR156	FR157
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V _{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V _{DC}	V	50	100	200	400	600	800	1000
Average Forward Current @60Hz sine wave, Resistance load, Ta=75°C	I _{F(AV)}	A	1.5						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25°C	I _{FSM}	A	50						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C			100						
Current squared time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode	I ² t	A ² s	10.375						
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	C _j	pF	17				13	10	
Storage Temperature	T _{stg}	°C	-55 ~ +150						
Junction Temperature	T _j	°C	-55 ~ +150						

■ Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	FR151	FR152	FR153	FR154	FR155	FR156	FR157
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =1.5A	1.3						
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	T _j =25°C	2.5						
			T _j =125°C	100						
Maximum reverse recovery time	t _{rr}	ns	I _F =0.5A, I _R =1.0A, I _r =0.25A	150			250	500		



FR151 THRU FR157

■ Thermal Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FR151	FR152	FR153	FR154	FR155	FR156	FR157
Typical Thermal Resistance	$R_{\theta J-A}$	$^\circ\text{C/W}$	50						

■ Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
FR151 ~ FR157	D1	Approximate 0.38	3000	3000	30000	Tape
FR151 ~ FR157	C1	Approximate 0.38	500	500	25000	Bulk

■ Characteristics (Typical)

FIG.1: I_o - T_a Curve

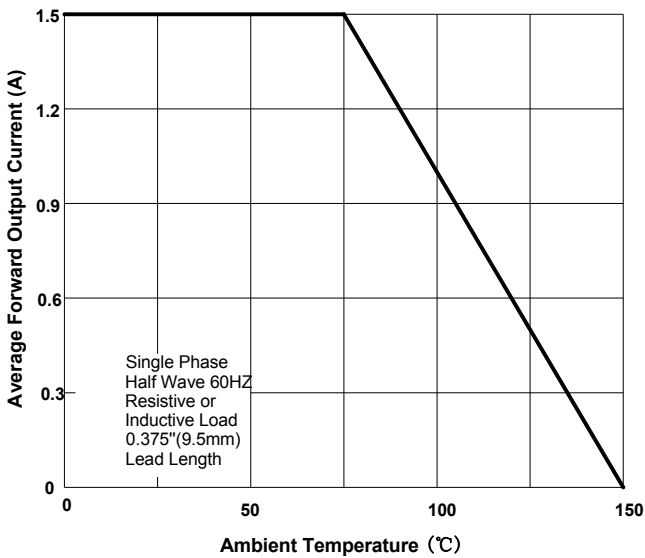


FIG.2: Forward Surge Current Capability

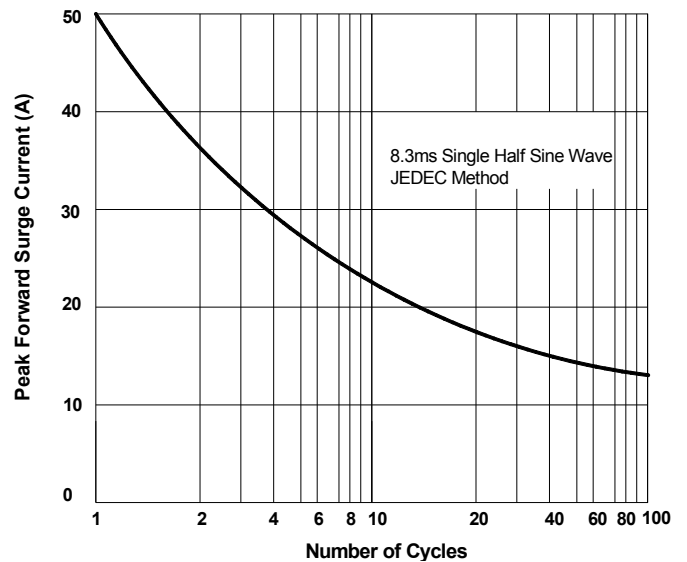


FIG.3: Forward Voltage

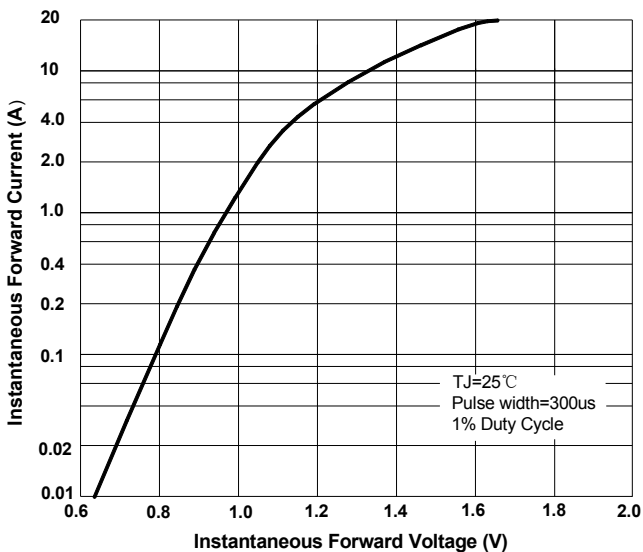


FIG.4: Typical Reverse Characteristics

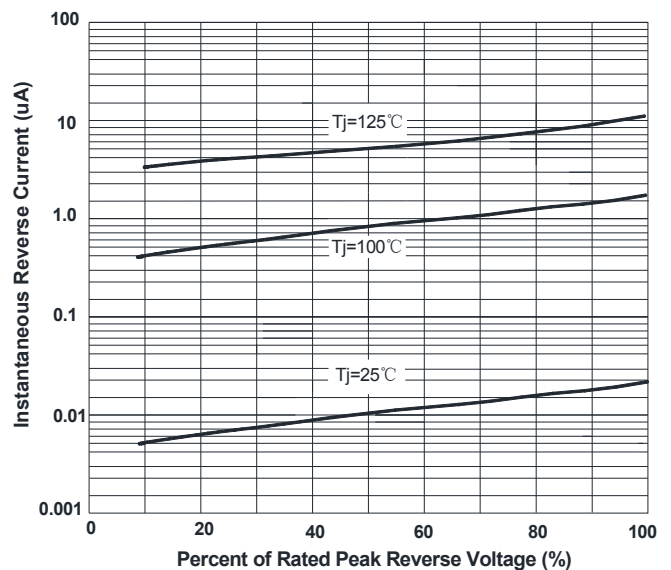
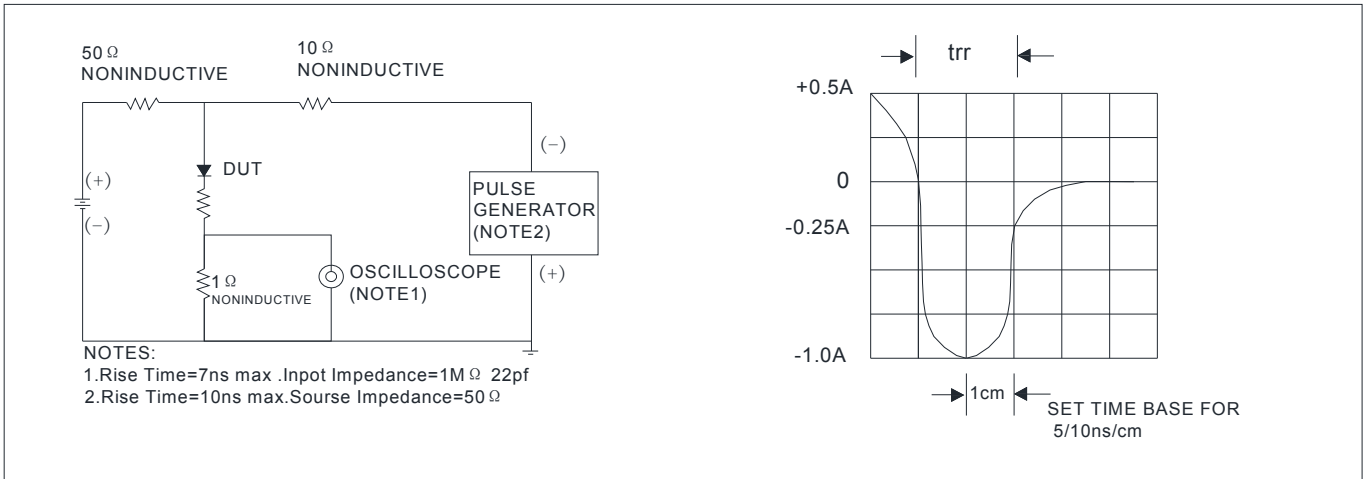
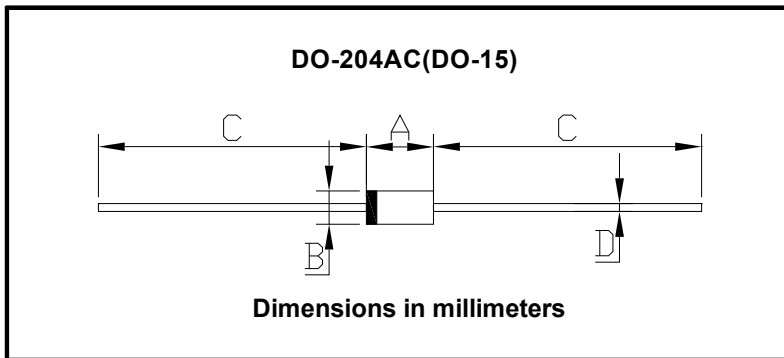


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ Outline Dimensions



DO-204AC(DO-15)		
Dim	Min	Max
A	5.80	7.60
B	2.60	3.60
C	25.4	/
D	0.70	0.90



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