

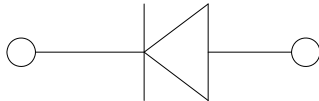


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Fast Recovery Rectifier



Features

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

Mechanical Data

- **Package:** DO-204AL(DO-41)
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 (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FR101	FR102	FR103	FR104	FR105	FR106	FR107
Device marking code			FR101	FR102	FR103	FR104	FR105	FR106	FR107
Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Average Forward Current @60Hz sine wave, Resistance load, T _a =50°C	I _{F(AV)}	A	1.0						
Surge(Non-repetitive)Forward Current @60Hz Half-sine wave, 1 cycle, T _a =25°C	IFSM	A	30						
Storage Temperature	T _{stg}	°C	-55 ~+150						
Junction Temperature	T _j	°C	-55~+125						

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	FR101	FR102	FR103	FR104	FR105	FR106	FR107
Maximum instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =1.0A	1.3						
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	μA	T _a =25°C	2.5						
	I _{RRM2}		T _a =100°C	100						
Reverse Recovery time	t _{tr}	ns	I _F =0.5A I _R =1A I _{RR} =0.25A	150				250	500	
Typical junction capacitance	C _j	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.	20						

■Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FR101	FR102	FR103	FR104	FR105	FR106	FR107
Thermal Resistance(Typical)	R _{θJA}	°C/W	50						



FR101 THRU FR107

■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
FR101~FR107	D1	Approximate 0.27	5000	5000	50000	Tape
FR101~FR107	C1	Approximate 0.27	1000	1000	50000	Bulk

■ Characteristics (Typical)

FIG.1: I_o - T_a Curve

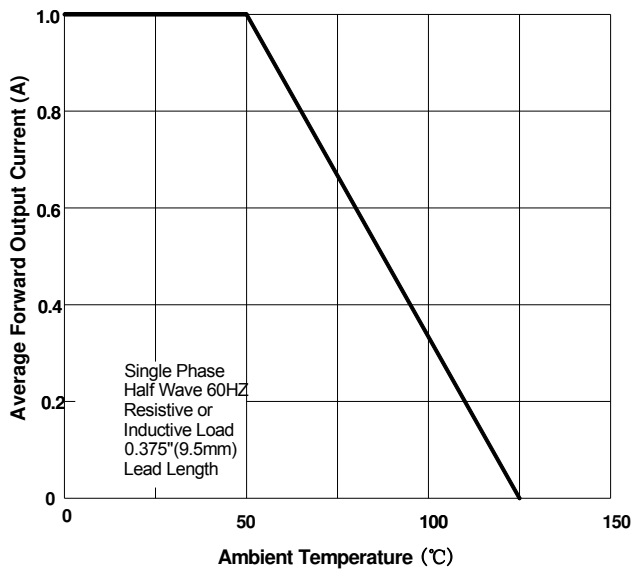


FIG.2: Surge Forward Current Capability

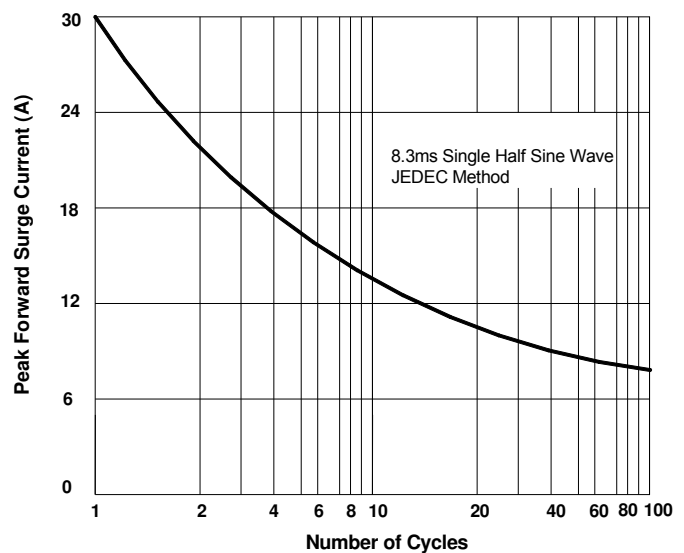


FIG.3: Forward Voltage

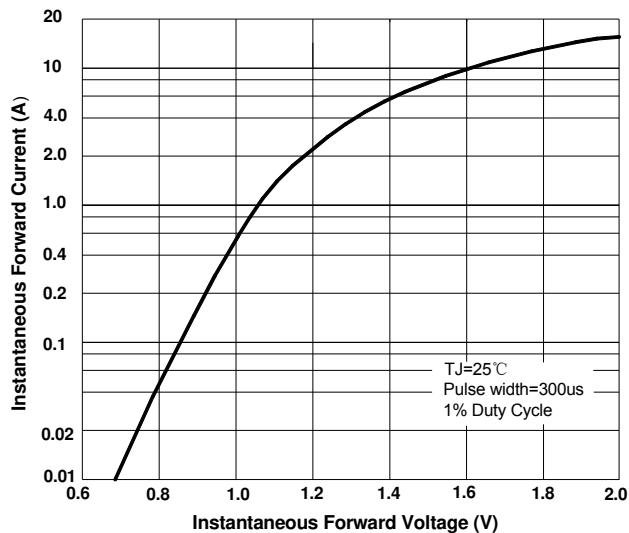


FIG.4: Typical Reverse Characteristics

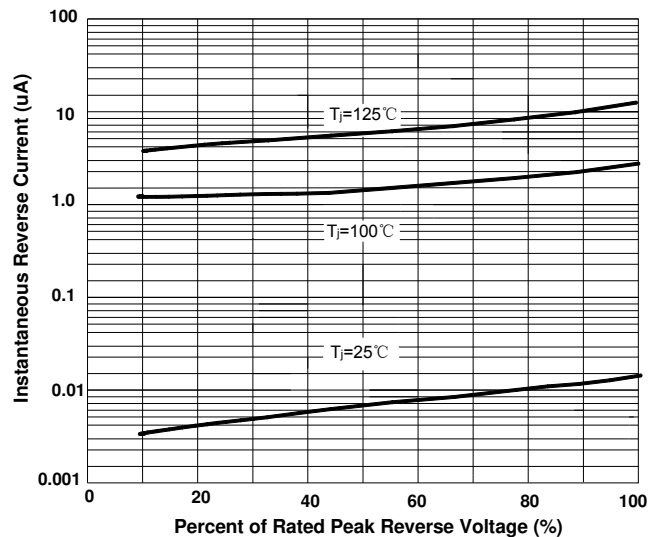
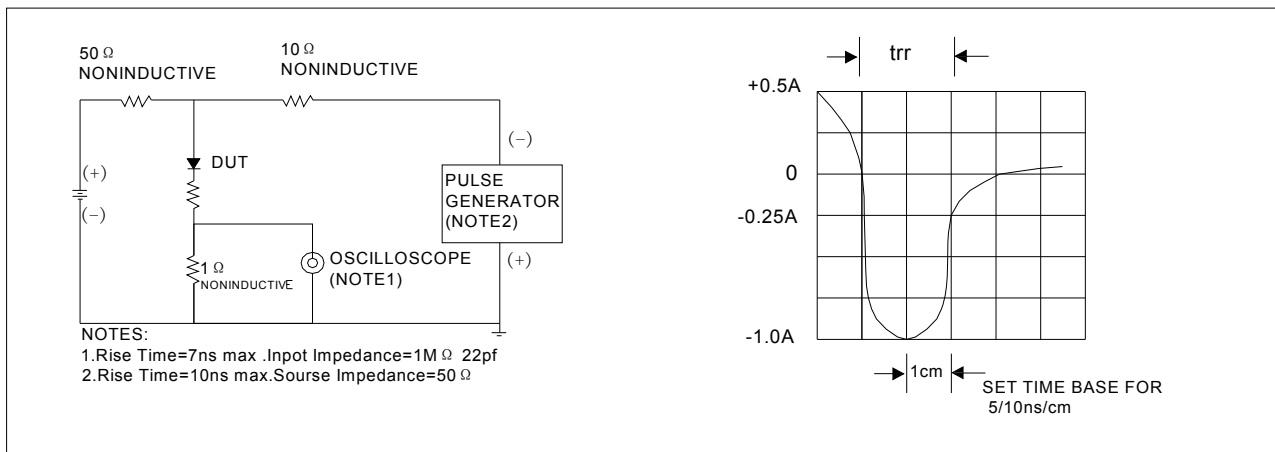
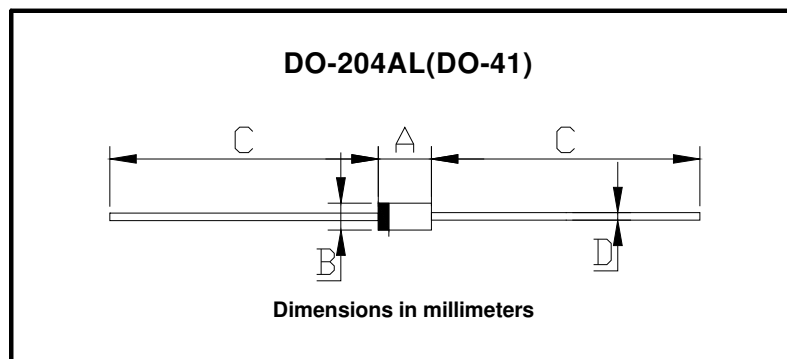


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ Outline Dimensions



DO-204AL (DO-41)		
Dim	Min	Max
A	4.22	5.21
B	2.03	2.72
C	25.4	/
D	0.69	0.86



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