

■ 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-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 (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FR101G	FR102G	FR103G	FR104G	FR105G	FR106G	FR107G		
Device marking code			FR101G	FR102G	FR103G	FR104G	FR105G	FR106G	FR107G		
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000		
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700		
Maximum DC blocking Voltage	VDC	V	50	100	200	400	600	800	1000		
Average Forward Current @60Hz sine wave, Resistance load, Ta=75°C	IF(AV)	A	1.0								
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25°C	IFSM	A	30								
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C			60								
Current squared time @1ms≤t≤8.3ms Tj=25°C. Rating of per diode	I²t	A²s	3.735								
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	Cj	pF	10					8			
Storage Temperature	Tstg	°C	-55 ~ +150								
Junction Temperature	Tj	°C	-55 ~ +150								

■ ELECTRICAL CHARACTERISTICS (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	FR101G	FR102G	FR103G	FR104G	FR105G	FR106G	FR107G
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=1.0A	1.3						
Maximum DC reverse current at rated DC blocking voltage per diode	IR	µA	Tj=25°C	2.5						
			Tj=125°C	100						
Maximum reverse recovery time	tr	ns	IF=0.5A, IR=1.0A, IR=0.25A	150			250		500	

■ **THERMAL CHARACTERISTICS** ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FR101G	FR102G	FR103G	FR104G	FR105G	FR106G	FR107G
Typical Thermal Resistance	$R_{\theta J-A}$	$^\circ\text{C/W}$	60						

■ **PACKAGING INFORMATION**

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
FR101G~FR107G	D1	Approximate 0.30	5000	5000	50000	Tape
FR101G~FR107G	C1	Approximate 0.30	1000	1000	50000	Bulk

■ **CHARACTERISTICS (TYPICAL)**

FIG.1: I_o - T_a Curve

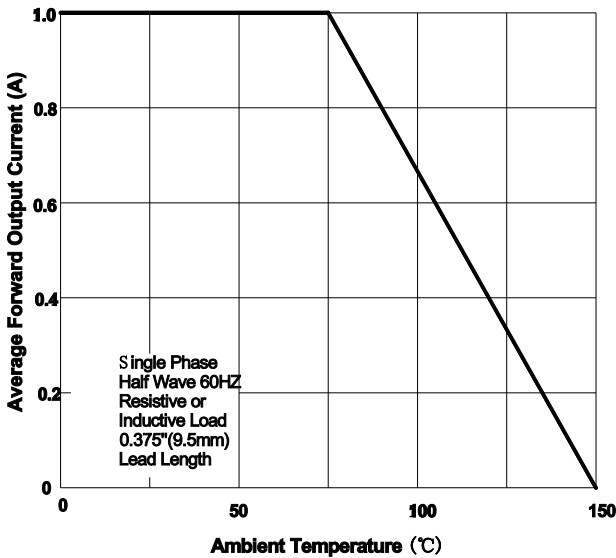


FIG.2: Forward Surge Current Capability

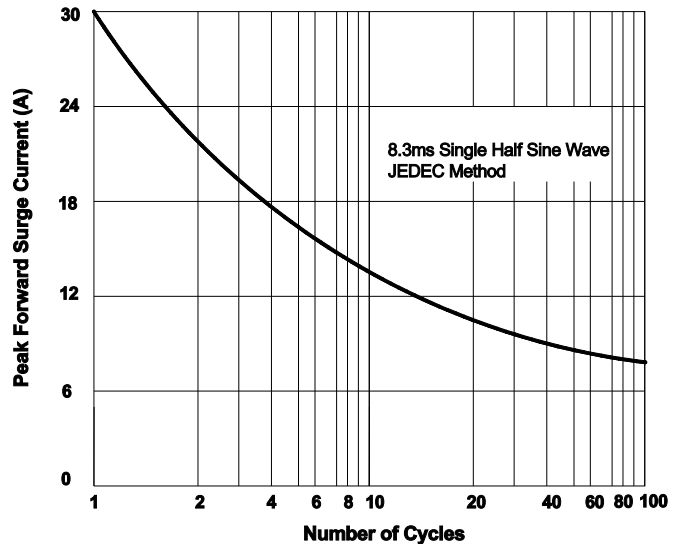


FIG.3: Forward Voltage

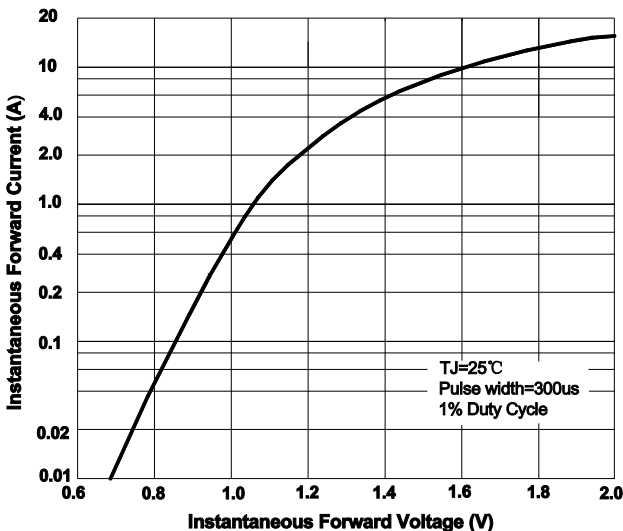


FIG.4: Typical Reverse Characteristics

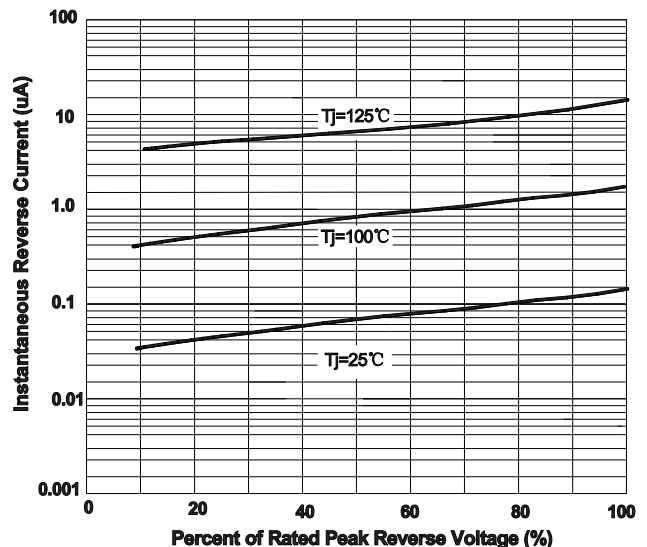
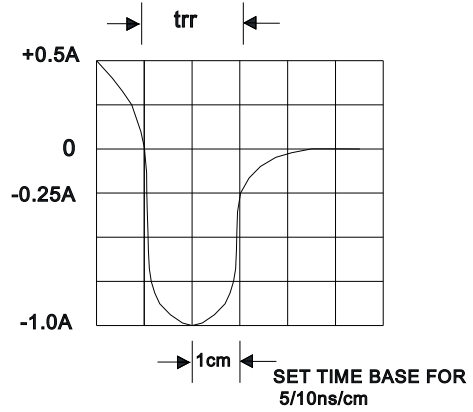
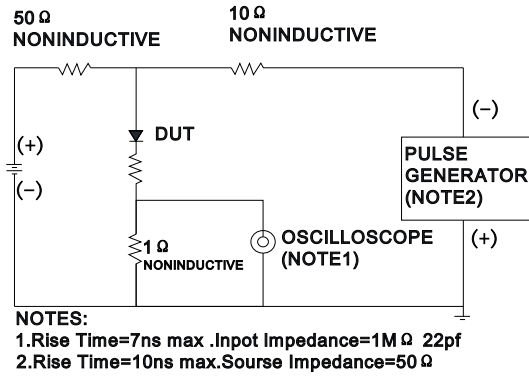
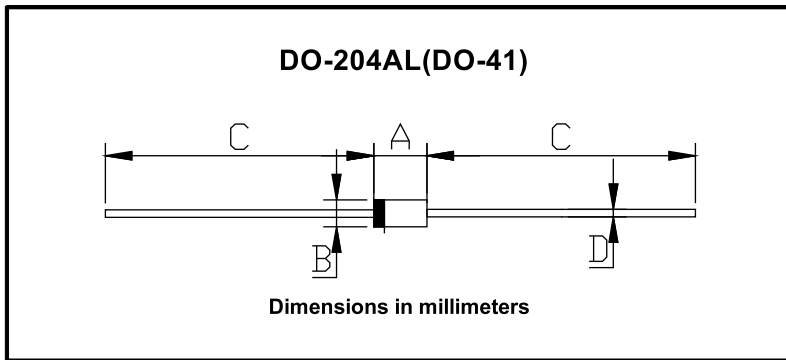


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



■ **OUTLINE DIMENSIONS**



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