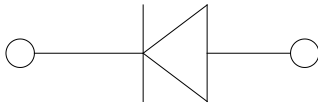
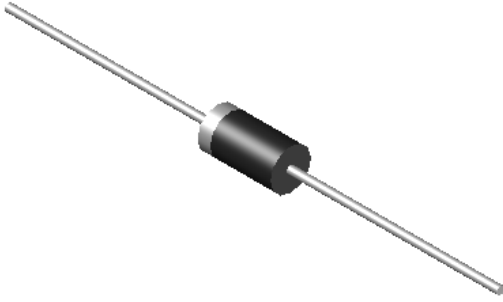




## Fast Recovery Rectifier



## 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-201AD(DO-27)  
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 ( $T_a=25^\circ\text{C}$  Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FR301G	FR302G	FR303G	FR304G	FR305G	FR306G	FR307G
Device marking code			FR301G	FR302G	FR303G	FR304G	FR305G	FR306G	FR307G
Repetitive Peak Reverse Voltage	$V_{RRM}$	V	50	100	200	400	600	800	1000
Average Forward Current @60Hz sine wave, Resistance load, $T_a=50^\circ\text{C}$	$I_{F(AV)}$	A	3.0						
Forward Surge Current(Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	$I_{FSM}$	A	125						
Storage Temperature	$T_{stg}$	$^\circ\text{C}$	-55 ~+150						
Junction Temperature	$T_j$	$^\circ\text{C}$	-55~+150						

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	FR301G	FR302G	FR303G	FR304G	FR305G	FR306G	FR307G
Maximum instantaneous forward voltage drop per diode	$V_{FM}$	V	$I_{FM}=3.0\text{A}$	1.3						
Maximum DC reverse current at rated DC blocking voltage per diode	$I_{RRM1}$	$\mu\text{A}$	$T_a=25^\circ\text{C}$	2.5						
	$I_{RRM2}$		$T_a=125^\circ\text{C}$	100						
Reverse Recovery time	$t_{rr}$	ns	$I_F=0.5\text{A}$ $I_R=1\text{A}$ $I_{RR}=0.25\text{A}$	150			250		500	
Typical junction capacitance	$C_j$	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.	55						

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

PARAMETER	SYMBOL	UNIT	FR301G	FR302G	FR303G	FR304G	FR305G	FR306G	FR307G
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^\circ\text{C/W}$	30						



# FR301G THRU FR307G

## Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
FR301G~FR307G	D1	Approximate 1.05	1250	1250	12500	Tape
FR301G~FR307G	C1	Approximate 1.05	250	250	12500	Bulk

## Characteristics (Typical)

FIG.1:  $I_o$ - $T_a$  Curve

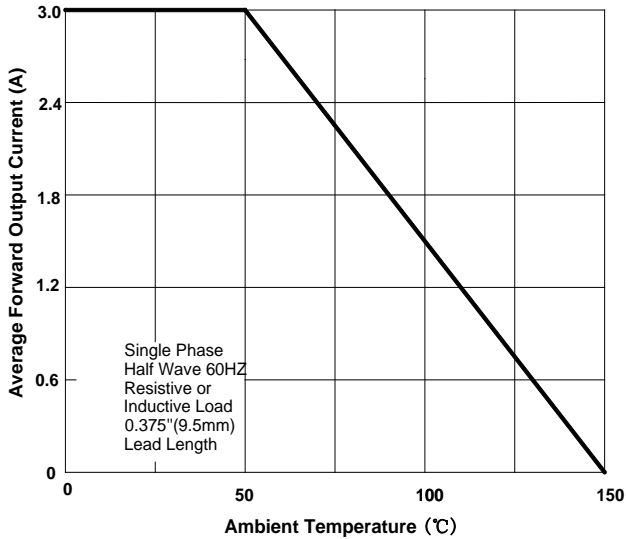


FIG.2: Forward Surge Current Capability

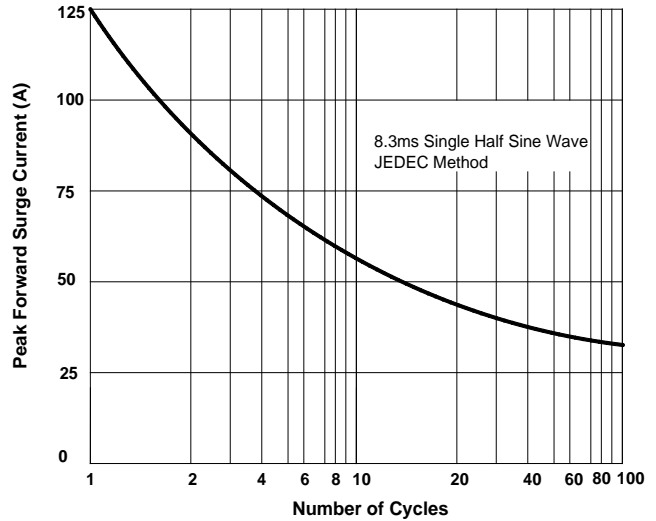


FIG.3: Forward Voltage

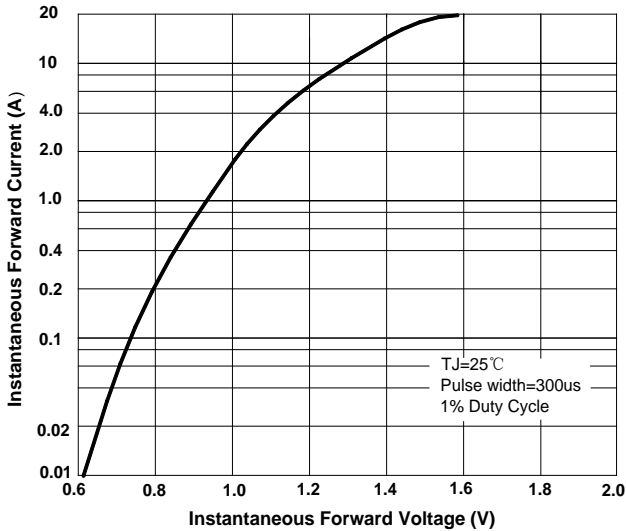
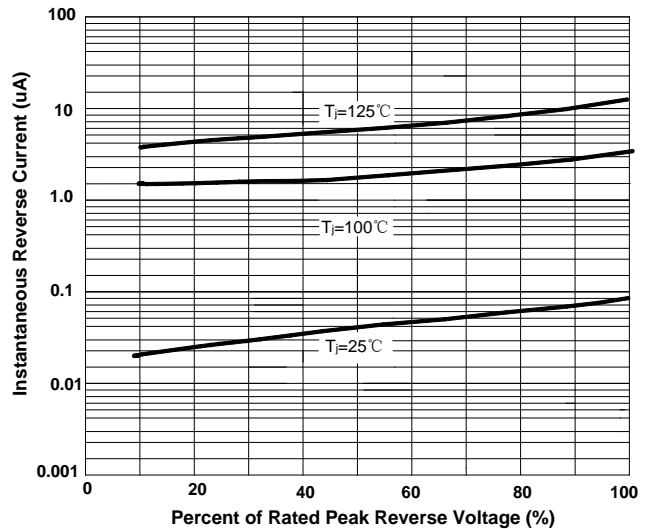


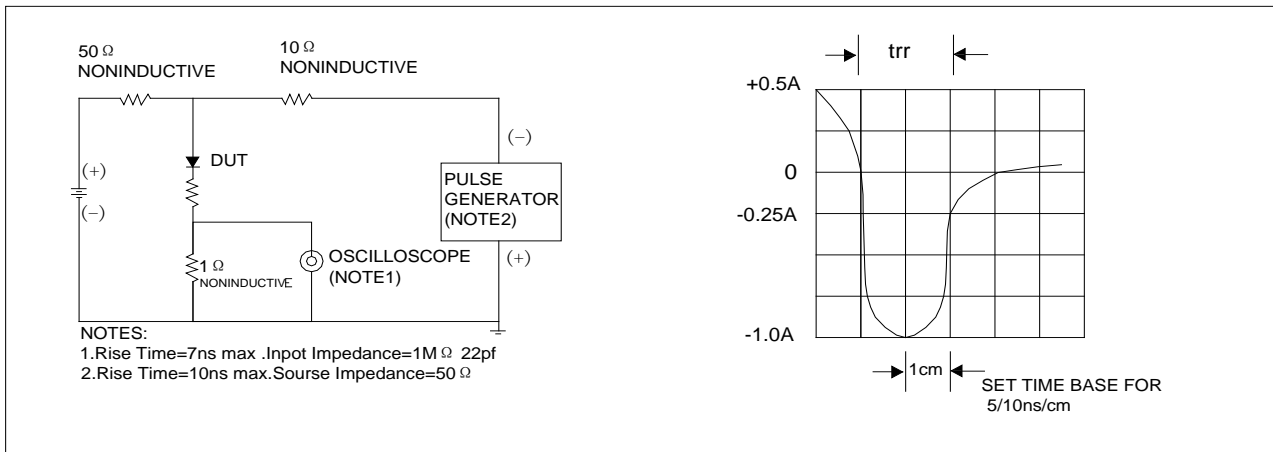
FIG.4: Typical Reverse Characteristics



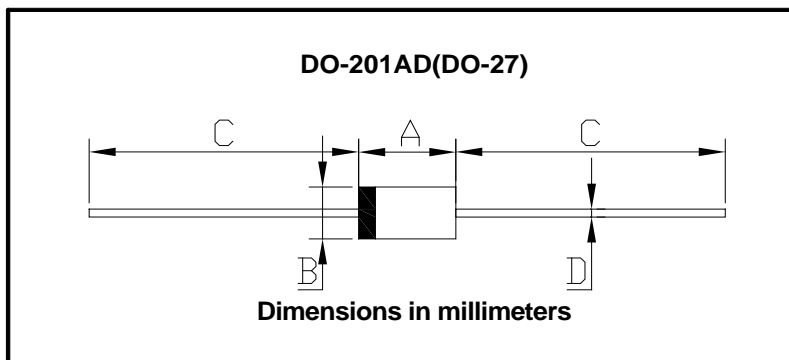


# FR301G THRU FR307G

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



## Outline Dimensions



DO-201AD(DO-27)		
Dim	Min	Max
A	8.50	9.50
B	5.00	5.60
C	25.4	/
D	1.20	1.30



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