SEMICONDUCTOR

FR601 THRU FR607

FAST RECOVERY RECTIFIER

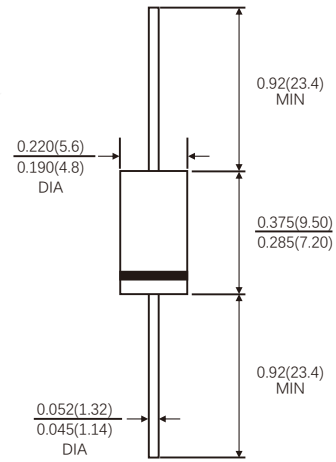
Reverse Voltage: 50 to 1000 Volts
Forward Current:6.0Amperes

FEATURES

- Low leakage
- Low forward voltage drop
- High current capability
- High current surge
- High reliability
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EC

Pb RoHS COMPLIANT

DO-201AD



Dimensions in inches and (millimetrers)

MECHANICAL DATA

- Case: JEDEC DO-201AD molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Mounting Position: Any
- Weight: 0.041ounce, 1.15 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25 ℃ ambient temperature unless otherwise specified.Single phase ,half wave ,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.)

Parameters		Symbols	FR 601	FR 602	FR 603	FR 604	FR 605	FR 606	FR 607	Units
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375"(9.5mm)lead length		$I_{F(AV)}$	6.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	200							Amps
Maximum Instantaneous Forward Voltage at 6.0A		V_F	1.2							Volts
Maximum DC Reverse Current at rated DC blocking voltage	T_J=25°C	I_R	5.0							μA
	T_J=125°C		100							
Maximum reverse recovery time(Note1)		trr	150				250	500		ns
Typical junction capacitance(Note2)		C_J	70				56			pF
Typical thermal resistance(Note3)		RθJL	8.0							℃/W
Operating junction and storage temperature range		T_J\\T_{STG}	-50 to+150							℃

Note: 1.Test conditions: IF=0.5A,IR=1.0A,IRR=0.25A.
2.Measured at 1MHZ and applied reverse voltage of 4.0 Volts D.C.
3.Thermal resistance from junction to lead vertical P.C.B. mounted , 0.375"(9.5mm)lead length

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

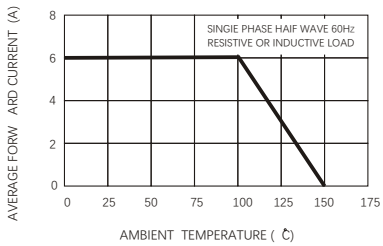


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

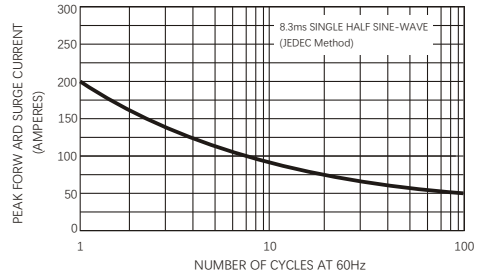


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

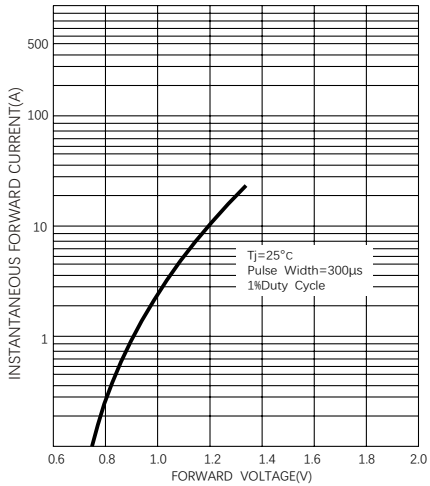
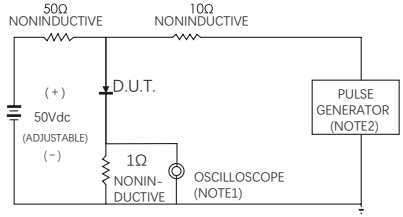
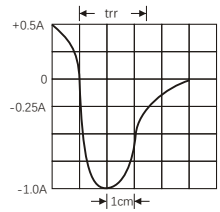


FIG.4-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES:1.Rise Time=7ns max. input Impedance=1 megohm 22pF
2.Rise Time=10ns max. source Impedance= 50 ohms



SET TIME BASE FOR 50/100 ns/cm

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