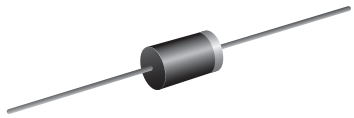
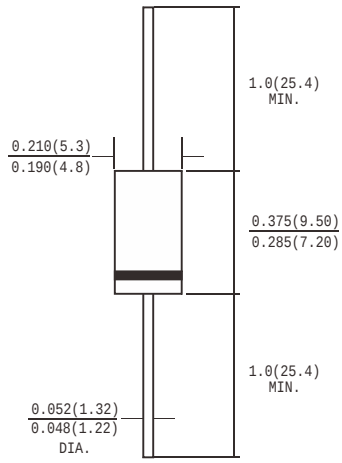
SF31 - SF38

SUPER FAST RECOVERY RECTIFIER DIODES

VOLTAGE RANGE: 50 - 600V
CURRENT: 3.0 A



DO-201AD



Dimensions in inches and (millimetrers)

Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC
- High temperature soldering guaranteed:260°C/10 seconds at terminals

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

RoHS COMPLIANT

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

	Symbols	SF31	SF32	SF33	SF34	SF35	SF36	SF37	SF38	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	500	600	Volts
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	350	420	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	500	600	Volts
Maximum Average Forward Rectified Current 0.375''(9.5mm)Lead Length@T_A=55°C	$I_{(AV)}$	3.0								Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	I_{FSM}	125								Amps
Maximum Instantaneous Forward Voltage at 3.0 A	V_F	0.95				1.3		1.7		Volts
Maximum DC Reverse Current At Rated DC Blocking Voltage T_A=25°C	I_R	5.0								μA
Maximum DC Reverse Current At Rated DC Blocking Voltage T_A=100°C	I_R	100								μA
Maximum Reverse Recovery Time(Note1)	Trr	35								ns
Typical Junction Capacitance(Note2)	Cj	80				70				pF
Typical Thermal Resistance(NOTE3)	$R_{\theta JA}$	35								°C/W
Operating Temperature Range	T_J	-65 to +125								°C
Storage Temperature Range	T_{STG}	-65 to +150								°C

Note: 1.Reverse Recovery Test conditions: I_F=0.5A,I_R=1.0A,I_{RR}=0.25A.

2.Measured at 1MHz and applied reverse voltage of 4.0 Volts.

3.Mount on Cu-Pad Size 16mmX16mm on PCB.

FIG.1-MAXIMUM AVERAGE FORWARD CURRENT DERATING

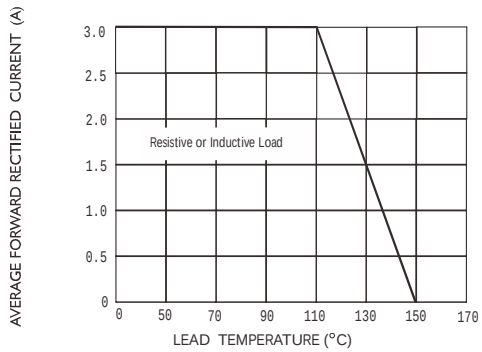


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

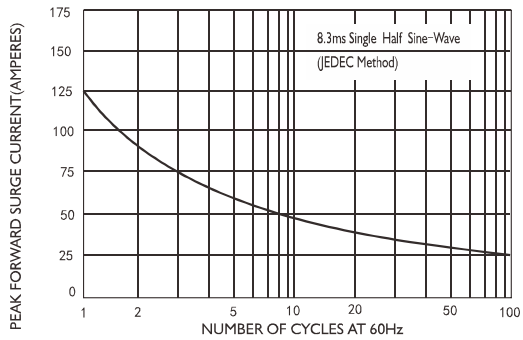


FIG.3-TYPICAL FORWARD CHARACTERISTICS

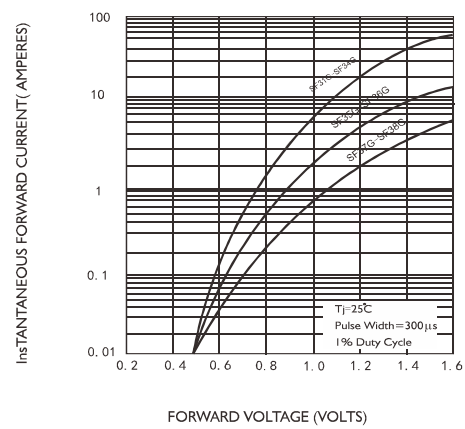


FIG.4-TYPICAL REVERSE CHARACTERISTICS

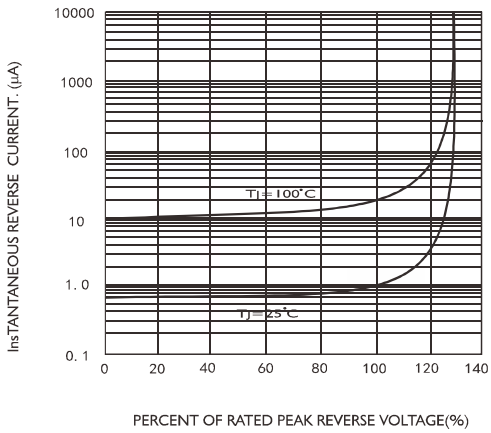


FIG.5-TYPICAL JUNCTION CAPACITANCE

