SUPER FAST GLASS PASSIVATED RECTIFIERS

SF51G -SF58G

DO-201AD

Axial Lead
Plastic Package

Polarity : Colour band denotes cathode end

FEATURES:

1) Super fast switching speed
2) Low forward voltage drop
3) Low leakage current
3) High forward surge capability
4) High reliability
5) High temperature soldering guaranteed
   260°C/10 seconds,0.375”(9.5mm)lead length at 5 lbs(2.3kg) tension

MECHANICAL DATA:

1) Case: Transfer molded plastic
2) Epoxy: UL94V-0 rate flame retardant
3) Polarity: Color band denotes cathode end
4) Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
5) Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

A. Ratings at 25□ambient temperature unless otherwise specified
B. Single Phase, half wave, 60Hz, resistive or inductive load
C. For capacitive load derate current by 20%

CHARACTERISTICS	SYMBOL	SF51G	SF52G	SF53G	SF54G	SF55G	SF56G	SF58G	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current at T_L=110°C	$I_{(AV)}$	5.0							A
Peak Forward Surge Current 8.3ms Single Half Sine -Wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	125							A
Maximum Instantaneous Forward Voltage at 2.0A	V_F	0.95				1.25		1.7	V
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	100.0							μA
Typical Junction Capacitance (Note 1)	Cj	50				30			pF
Typical Thermal Resistance (Note 2)	$R_{\theta J-A}$	50							°C/W
Operating Junction Temperature Range	T_J	-55 to +150							°C
Operating Storage Temperature Range	T_{stg}	-55 to +150							°C

1.Reverse Recovery Test Conditions:If=0.5A,Ir=1.0A,Irr=0.25A.
2.Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
3.Thermal Resistance From Junction to Ambient at. 375”(9.5mm)lead length, P.C. board mounted

CHARACTERISTICS CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

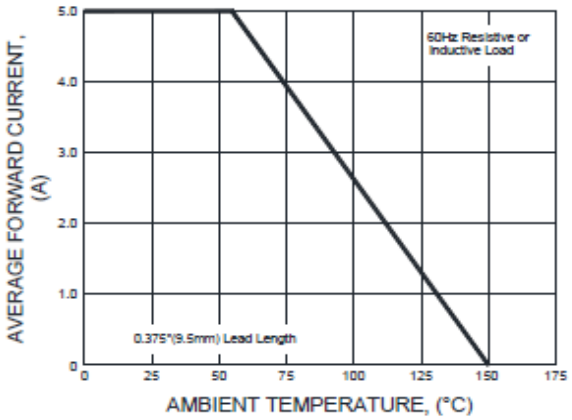


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

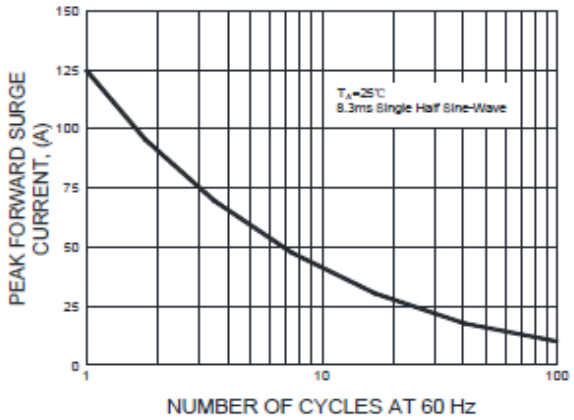


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

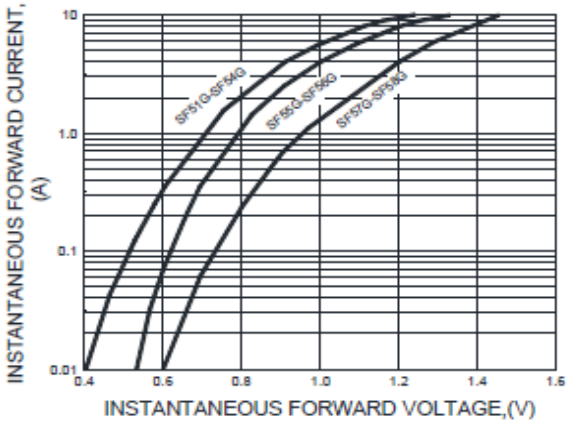


FIG.3-TYPICAL REVERSE CHARACTERISTICS

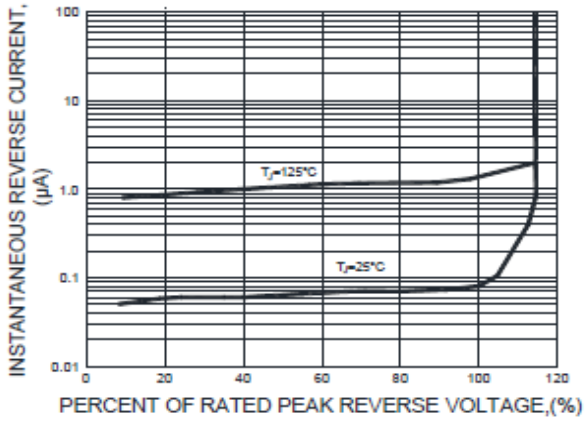
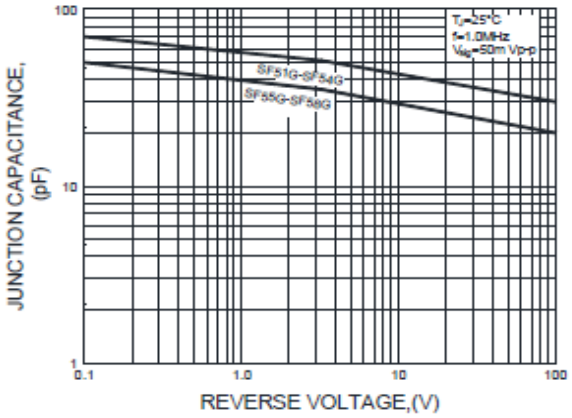
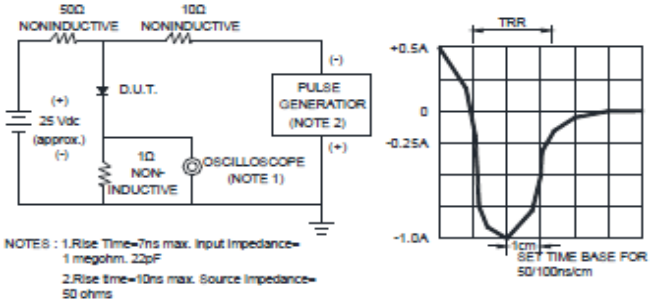


FIG.5-TYPICAL JUNCTION CAPACITANCE

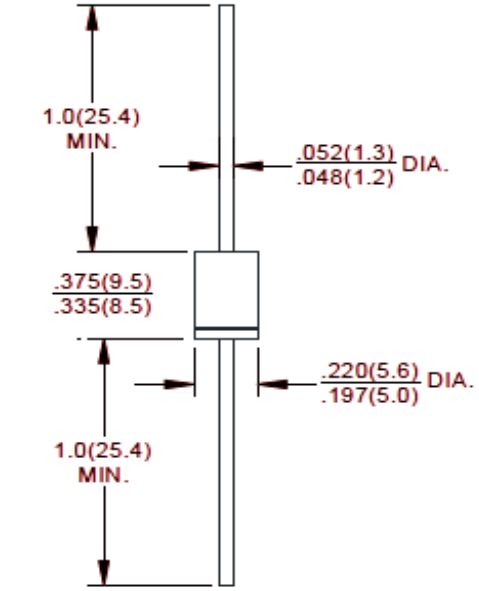


F1G.6-TEST CIRCUIT DIAGRAM AND FORWARD SURGE CURRENT



PACKAGE OUTLINE AND DIMENSION

DO-201AD(DO-27)



Dimensions in inches and (millimeters)

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.

2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.

CDIL is a registered Trademark of
Continental Device India Pvt.Limited
C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-2579 6150, 4141 1112 Fax + 91-11-2579 5290, 4141 1119
email@cdil.com www.cdil.com
CIN No. - U32109DL1964PTC004291