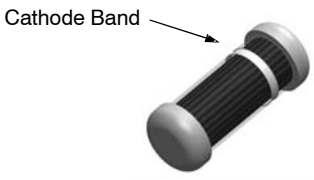
High Conductance, Low Leakage Diode

FDLL3595



MiniMELF/SOD−80
CASE 100AD

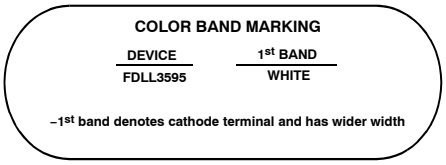
Description

A general purpose diode that couples high forward conductance fast switching speed and high blocking voltages in a glass leadless LL−34 surface mount package. Placement of the expansion gap has no relationship to the location of the cathode terminal which is indicated by the first color band.

Features

- This is a Pb−Free and Halide Free Device

MARKING DIAGRAM



ABSOLUTE MAXIMUM RATINGS

(Values are at T_A = 25°C unless otherwise noted.)

Symbol	Parameter		Value	Unit
W_{IV}	Working Inverse Voltage		125	V
I_O	Average Rectified Forward Current		200	mA
I_F	DC Forward Current		500	mA
i_F	Recurrent Peak Forward Current		600	mA
I_{FSM}	Non−Repetitive Peak Forward Current	Pulse Width = 1.0 s	1.0	A
		Pulse Width = 1.0 μs	4.0	
T_{STG}	Storage Temperature Range		−65 to +200	°C
T_J	Operating Junction Temperature		−65 to +200	°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

THERMAL CHARACTERISTICS

Symbol	Parameter	Value	Unit
P_D	Power Dissipation	500	mW
	Linear Derating Factor from T_A = 25°C	3.33	mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	350	°C/W

ORDERING INFORMATION

Device	Package	Shipping†
FDLL3595	MiniMELF/SOD−80 (Pb−Free/Halide Free)	2500 / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification Brochure, BRD8011/D.

ELECTRICAL CHARACTERISTICS (Values are at T_A = 25°C unless otherwise noted.)

Symbol	Parameter	Test Conditions	Min	Max	Unit
V_R	Breakdown Voltage	I_R = 100 μA	150	–	V
V_F	Forward Voltage	I_F = 1.0 mA	520	680	mV
		I_F = 5.0 mA	600	750	
		I_F = 10 mA	650	800	
		I_F = 50 mA	750	880	
		I_F = 100 mA	790	920	
		I_F = 200 mA	0.83	1.0	V
I_R	Reverse Leakage	V_R = 125 V	–	1.0	nA
		V_R = 30 V, T_A = 125°C	–	300	nA
		V_R = 125 V, T_A = 125°C	–	500	nA
		V_R = 180 V, T_A = 150°C	–	3.0	μA
C_T	Total Capacitance	V_R = 0, f = 1.0 MHz	–	8.0	pF
t_{rr}	Reverse Recovery Time	I_F = 10 mA V_R = 3.5 V R_L = 1.0 kΩ	–	3.0	μs

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

TYPICAL CHARACTERISTICS

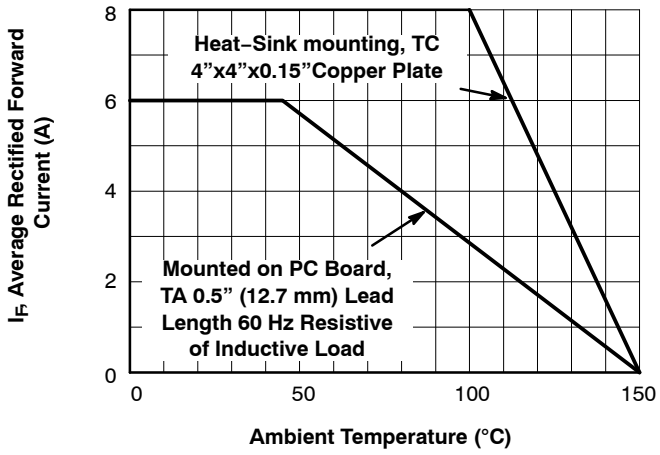


Figure 1. Forward Current Derating Curve

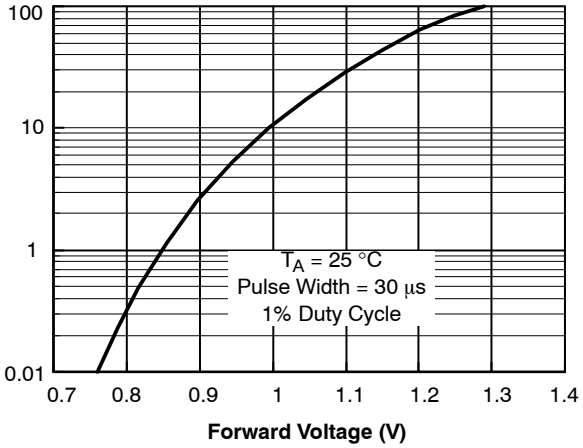


Figure 2. Forward Characteristics

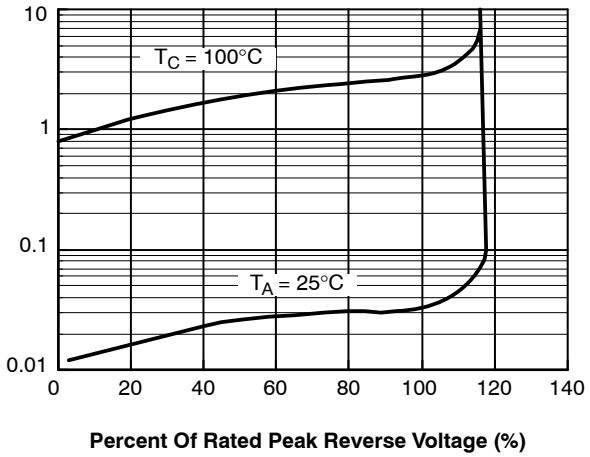


Figure 3. Reverse Characteristics

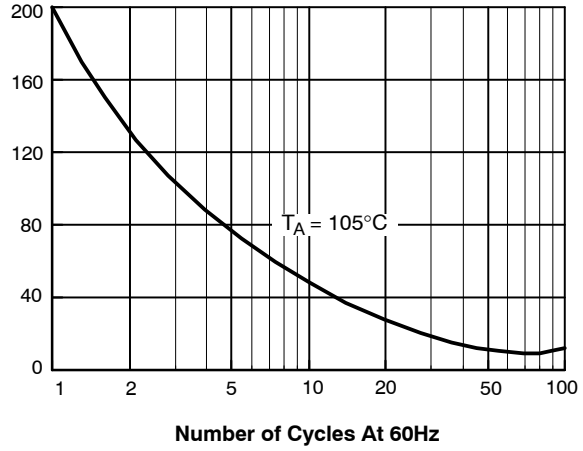


Figure 4. Non−Repetitive Surge Current

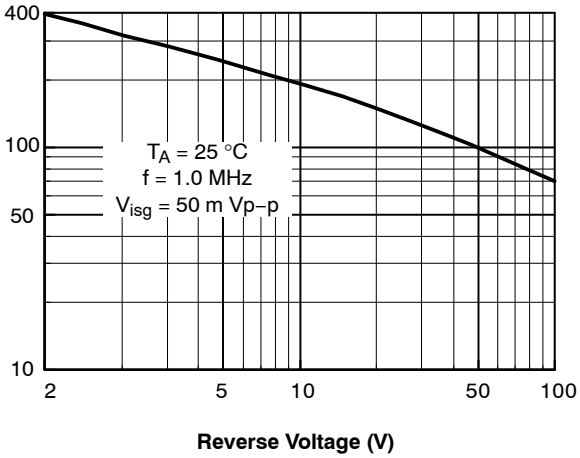


Figure 5. Junction Capacitance

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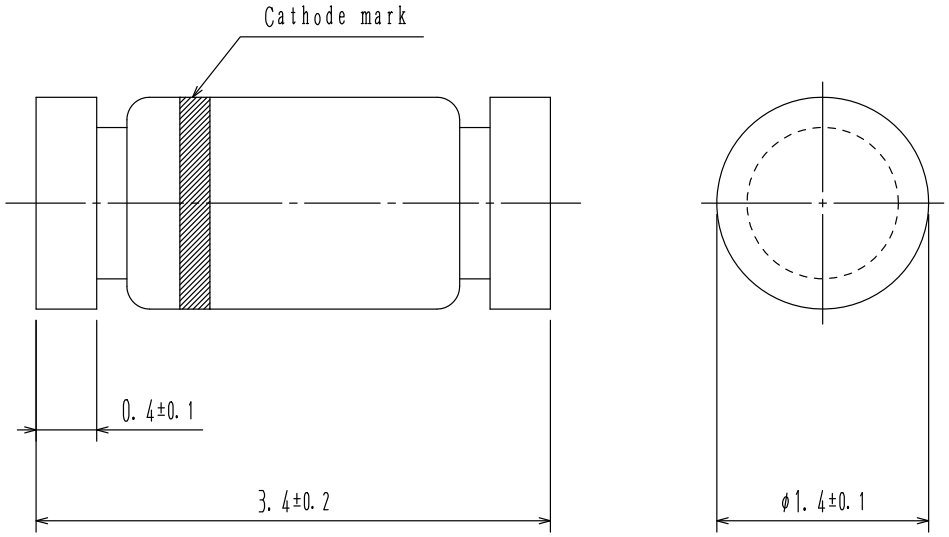

NOTES: UNLESS OTHERWISE SPECIFIED

A) PACKAGE STANDARD REFERENCE: JEDEC DO-213, VARIATION AC.

B) ALL DIMENSIONS ARE IN MILLIMETERS.

△C CORNER RADIUS IS OPTIONAL.

D) DRAWING FILE NAME: SOD80A REV01

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