

High Conductance, Low Leakage Diode

FDLL3595

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

ABSOLUTE MAXIMUM RATINGS

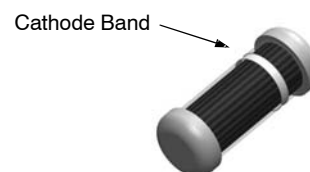
(Values are at $T_A = 25^\circ\text{C}$ unless otherwise noted.)

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
		Pulse Width = 1.0 μs	4.0
T_{STG}	Storage Temperature Range	-65 to +200	$^\circ\text{C}$
T_J	Operating Junction Temperature	-65 to +200	$^\circ\text{C}$

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.

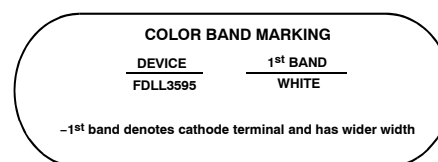
THERMAL CHARACTERISTICS

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



MiniMELF/SOD-80
CASE 100AD

MARKING DIAGRAM



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.

FDLL3595

ELECTRICAL CHARACTERISTICS (Values are at $T_A = 25^\circ\text{C}$ unless otherwise noted.)

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

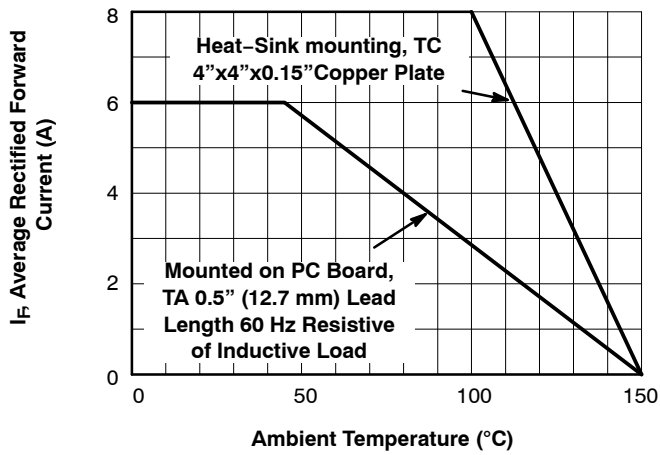


Figure 1. Forward Current Derating Curve

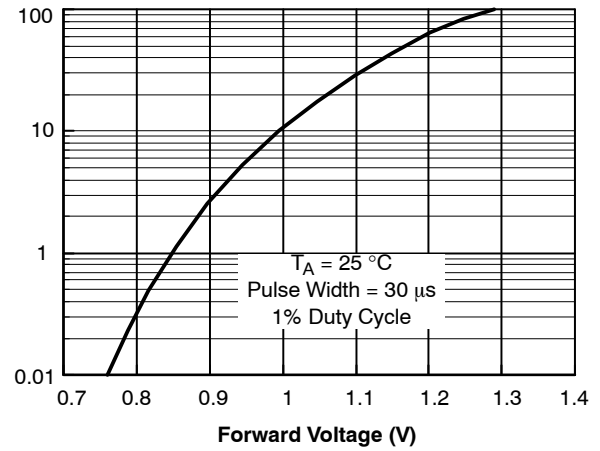


Figure 2. Forward Characteristics

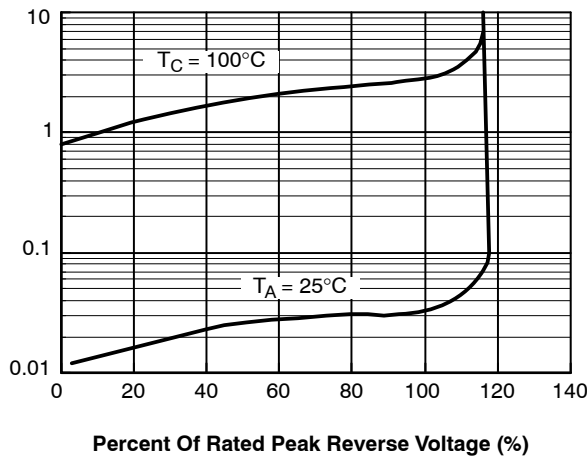


Figure 3. Reverse Characteristics

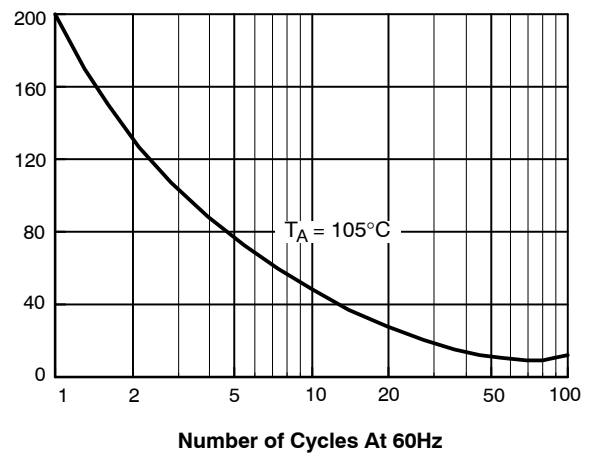


Figure 4. Non-Repetitive Surge Current

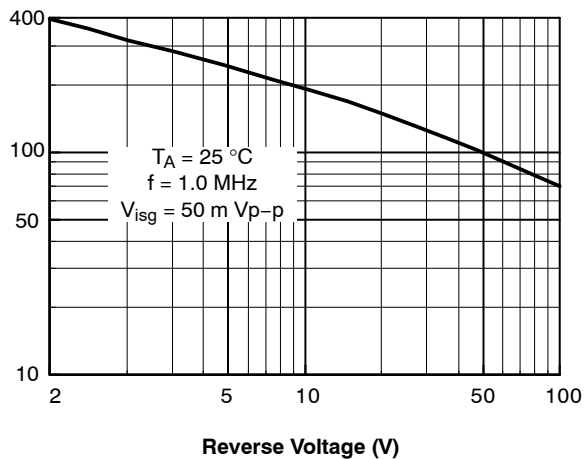
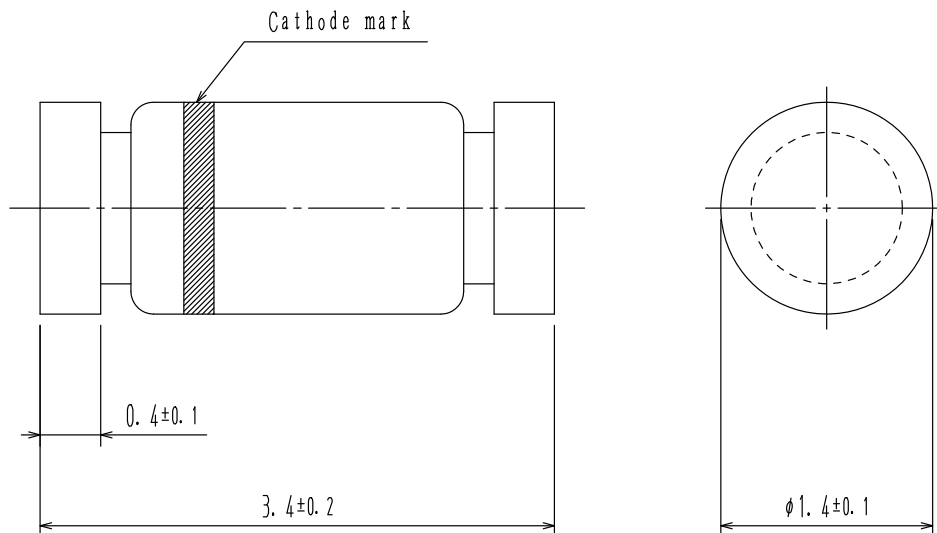


Figure 5. Junction Capacitance

MiniMELF / SOD-80
CASE 100AD
ISSUE O

DATE 30 APR 2012



NOTES: UNLESS OTHERWISE SPECIFIED

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

B) ALL DIMENSIONS ARE IN MILLIMETERS.

 CORNER RADIUS IS OPTIONAL.

D) DRAWING FILE NAME: SOD80A REV01

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