

SOD-882 Plastic Package Fast Switching Diode

Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation	125	mW
T_{STG}	Storage Temperature Range	-55 to +125	$^\circ\text{C}$
T_J	Operating Junction Temperature	+125	$^\circ\text{C}$
V_{RRM}	Repetitive Peak Reverse Voltage	100	V
V_R	DC Reverse Voltage	75	V
I_O	Average Forward Current	150	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current (Pulse Width=1us)	2	A

These ratings are limiting values above which the serviceability of the diode may be impaired.

Specification Features:

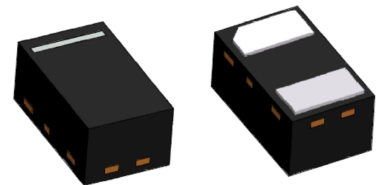
- § High Speed Switching ($T_{RR} < 4.0 \text{ nS}$)
- § Small Surface Mounting Type (DFN1006)
- § RoHS Compliant
- § Green EMC
- § Matte Tin(Sn) Lead Finish
- § Band Indicates Cathode
- § Weight: approx. 0.001g

DEVICE MARKING CODES:

Device Type	Marking	Shipping
CDSQR4148	S3	10,000/Tape & Reel

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
B_V	Breakdown Voltage	$I_R = 100\mu\text{A}$ $I_R = 5\mu\text{A}$	100 75		Volts
I_R	Reverse Leakage Current	$V_R = 20\text{V}$ $V_R = 75\text{V}$		25 5	nA μA
V_F	Forward Voltage	$I_F = 10\text{mA}$		1.0	Volts
T_{RR}	Reverse Recovery Time	$I_F = 10\text{mA}$, $I_R = 60\text{mA}$, $R_L = 100\Omega$, $I_{RR} = 1\text{mA}$		4	nS
C	Capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$		4	pF

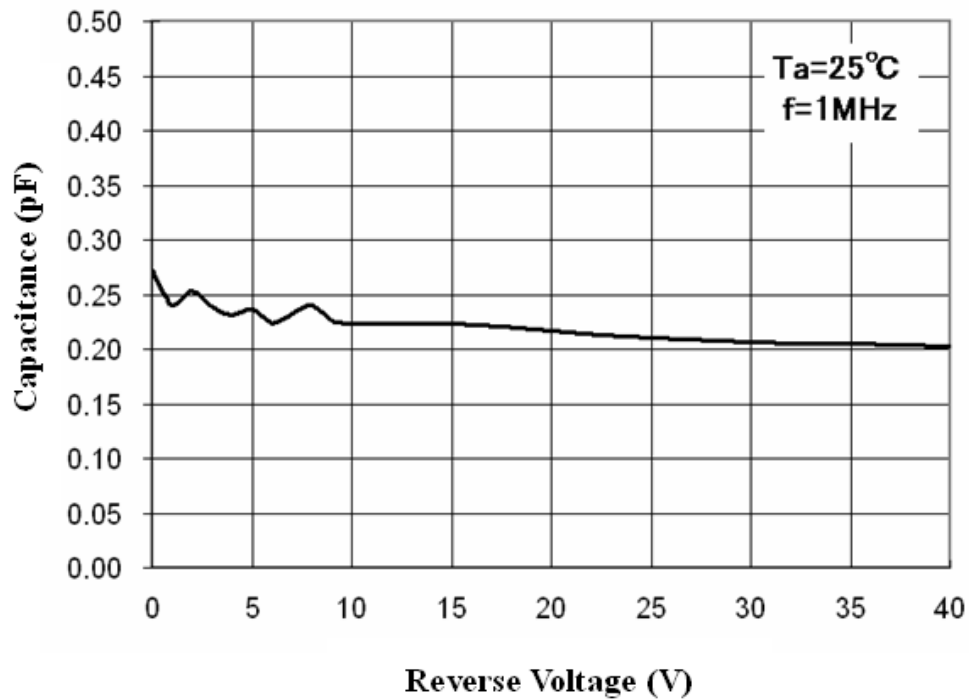


SOD882 Package

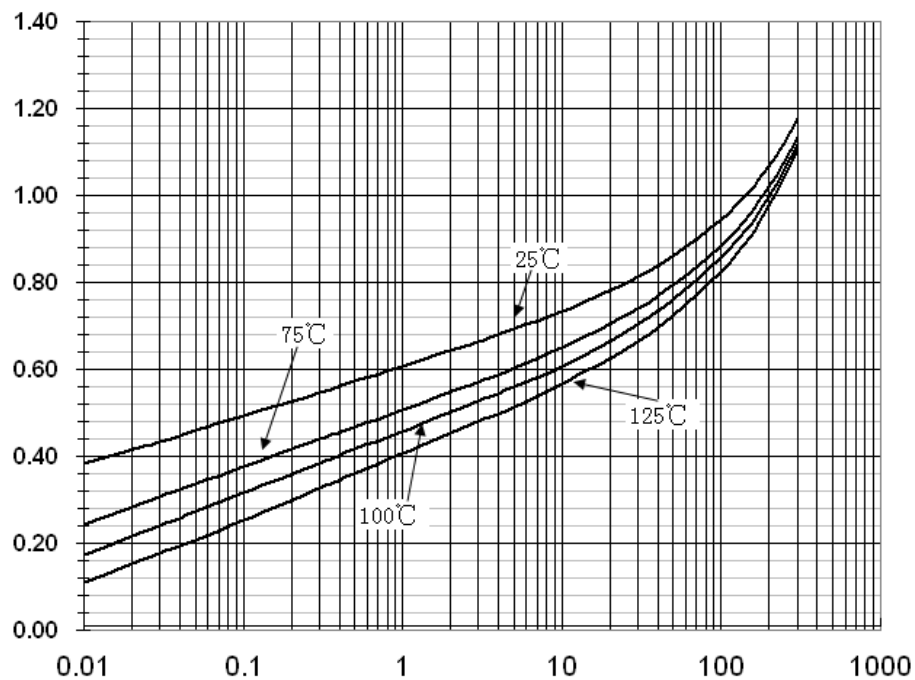


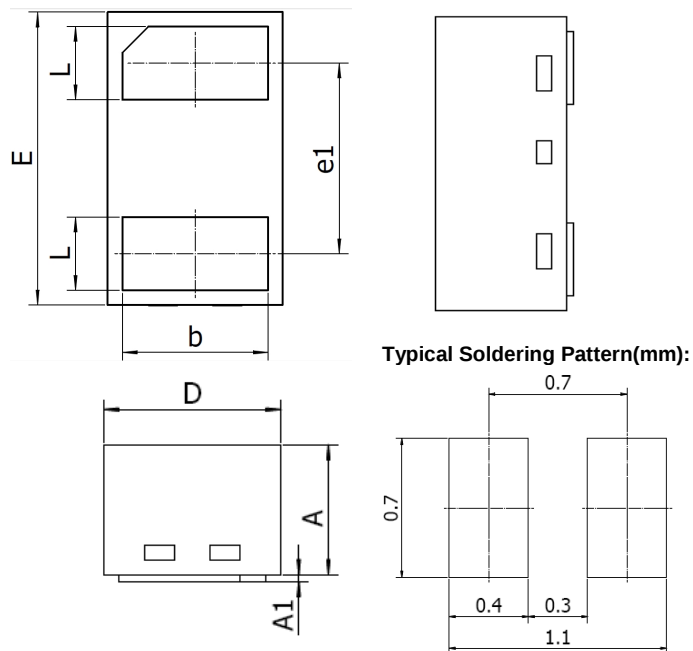
Typical Performance Characteristics

Total Capacitance



Forward Voltage vs Ambient Temperature



SOD882 Package Outline


DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.46	0.50	0.018	0.020
A1	---	0.03	---	0.001
b	0.45	0.55	0.018	0.022
D	0.55	0.65	0.022	0.026
E	0.95	1.05	0.037	0.041
e1	Typ. 0.65		Typ. 0.026	
L	0.20	0.30	0.008	0.012