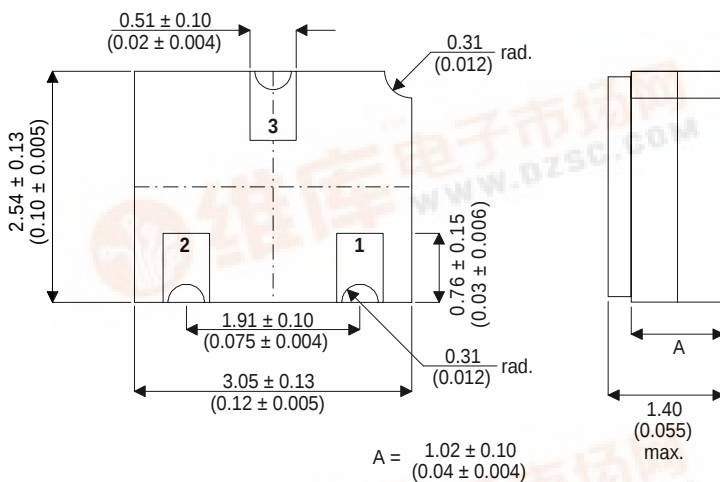


1N4148CSM

MECHANICAL DATA

Dimensions in mm (inches)



SILICON EPITAXIAL PLANAR DIODE

Fast Switching Diode in
Hermetic Ceramic Surface Mount Package
For High Reliability Applications

SOT23 CERAMIC (LCC1 PACKAGE)

Underside View

PAD 1 — Anode PAD 2 — Not Connected PAD 3 — Cathode

ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^{\circ}\text{C}$ unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_R	Reverse Voltage			75	V
V_{RRM}	Repetitive Peak Reverse Voltage			75	V
$I_{F(AV)}$	Average Rectified Forward Current			150	mA
I_F	Forward Current			200	mA
I_{FRM}	Repetitive Peak Forward Current			450	mA
I_{FSM}	Non-Repetitive Peak Forward Current	$t = 1\mu\text{s}$		2000	mA
		$t = 1\text{s}$		500	
P_{tot}	Power Dissipation at $T_{amb} = 25^{\circ}\text{C}$			500	mW

T_{stg}	Storage Temperature Range	-55 to +175 $^{\circ}\text{C}$
T_j	Max junction temperature	+150 $^{\circ}\text{C}$



CHARACTERISTICS ($T_{\text{case}} = 25^{\circ}\text{C}$ unless otherwise stated)

Parameter		Test Conditions	Min.	Typ.	Max.	Unit
V_F	Forward Voltage	$I_F = 10\text{mA}$			1	V
I_R	Reverse Current	$V_R = 20\text{V}$			25	nA
		$V_R = 20\text{V}$, $T_j = 150^{\circ}\text{C}$			50	μA
$V_{(\text{BR})R}$	Reverse Avalanche Breakdown Voltage	$I_R = 100\mu\text{A}$	100			V
		$I_R = 5\mu\text{A}$	75			V
C_d	Capacitance	$V_R = 0\text{V}$, $f = 1\text{ MHz}$			4	pF
V_{fr}	Forward Recovery Voltage	$I_F = 50\text{mA}$, $t_r = 20\text{ns}$			2.5	V
t_{rr}	Reverse Recovery Time	$I_F = 10\text{mA}$ to $I_R = 60\text{mA}$ $R_L = 100\Omega$			4	ns