

Surface Mount Switching Diode

CDST4148, CDST4448

Voltage: 75 Volts

Power: 350 mWatts



Feature

Fast switching speed

Surface mount package Ideally Suited for Automatic insertion

Electrically Identical to Standard JEDEC

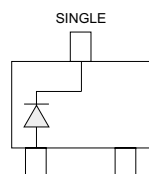
High Conductance

Mechanical Data

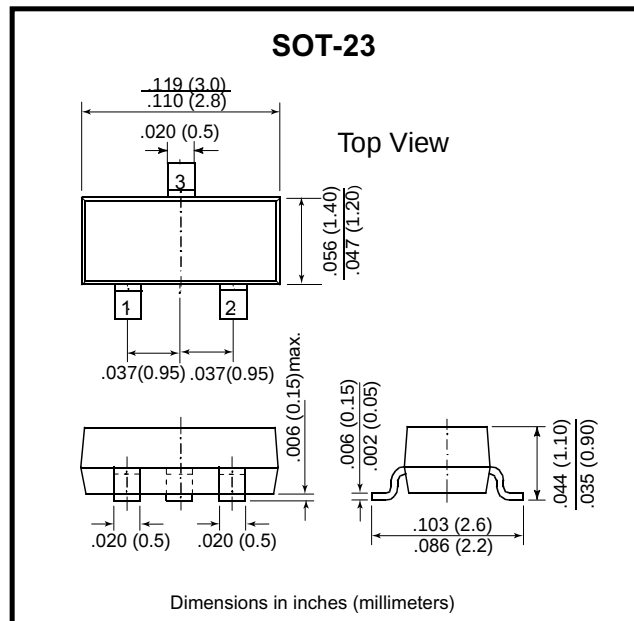
Case: SOT-23 Plastic Package

Terminals: Solderable per MIL-STD-202, Method 208

Approx. Weight: 0.008 gram



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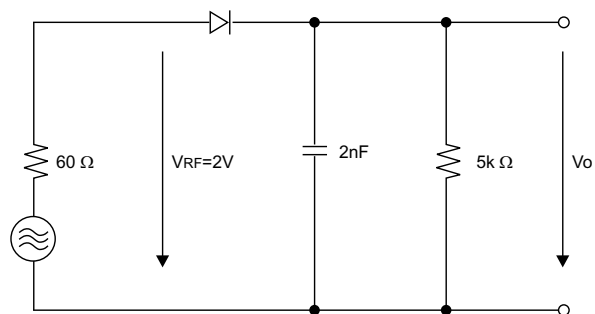
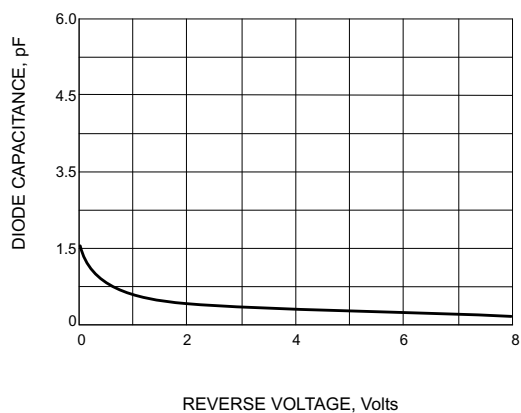
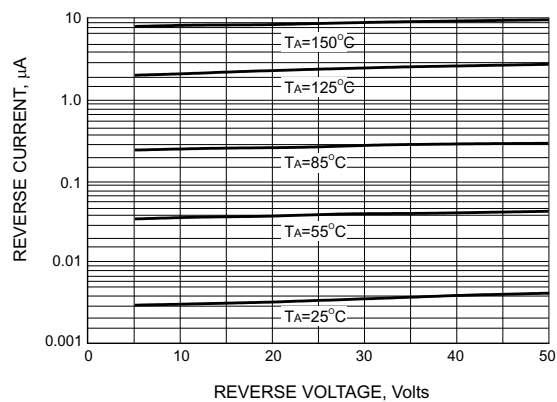
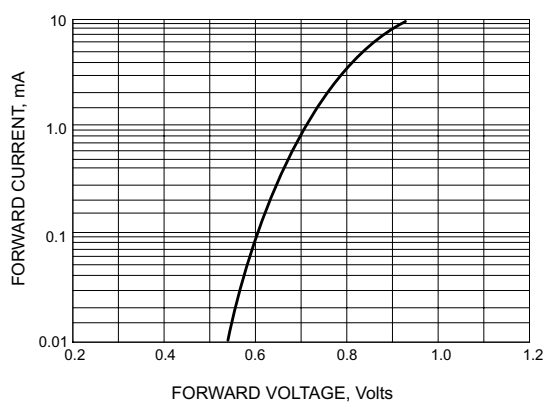
Maximum Ratings and Electrical Characteristics

Parameter	Symbol	CDST4148	CDST4448	Units
Reverse Voltage	V_R	75	75	V
Peak Reverse Voltage	V_{RM}	100	100	V
Rectified Current (Average), Half Wave Rectification with Resistive Load and $f \geq 50$ Hz	I_O	150	150	mA
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	2.0	4.0	A
Power Dissipation Derate Above 25°C	P_{TOT}	350		mW
Maximum Forward Voltage @ $I_F=5mA$ @ $I_F=10mA$	V_F	- 1.0	0.72 1.0	V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J = 25^\circ C$	I_R	2.5	2.5	μA
Typical Junction Capacitance(Notes1)	C_J	4.0	4.0	pF
Maximum Reverse Recovery (Notes2)	T_{RR}	4.0	4.0	ns
Maximum Thermal Resistance	$R_{\theta JA}$	357		$^\circ C/W$
Storage Temperature Range	T_J	-55 to +125		$^\circ C$

(1) C_J at $V_R = 0$, $f = 1MHz$

(2) From $I_F = 10mA$ to $I_R = 1mA$, $V_R = 6Volts$, $R_L = 100\Omega$

RATING AND CHARACTERISTIC CURVES (CDST4148)



RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT