Surface Mount Switching Diode

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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

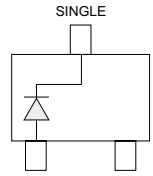
High Conductance

Mechanical Data

Case: SOT-23 Plastic Package

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

Approx. Weight: 0.008 gram



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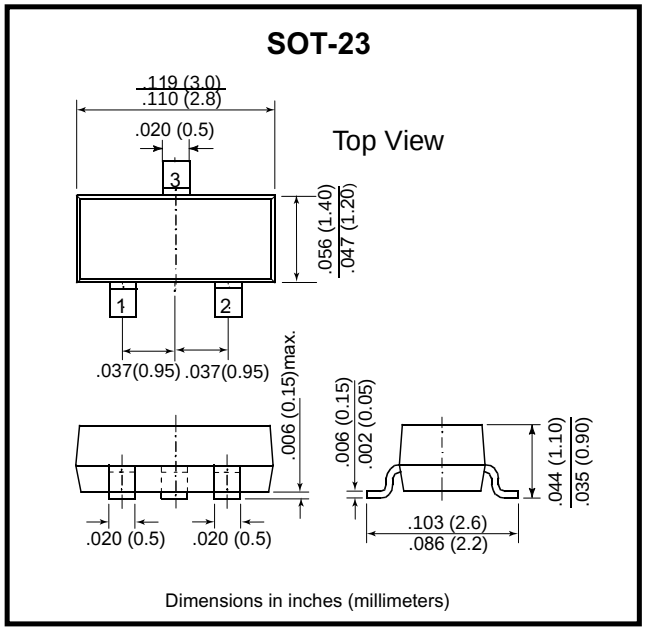


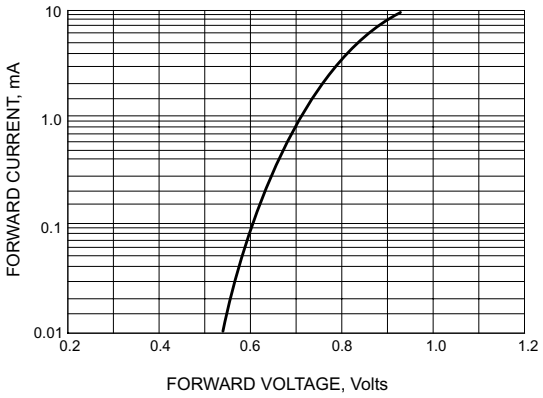
Maximum Ratings and Electrical Characterics

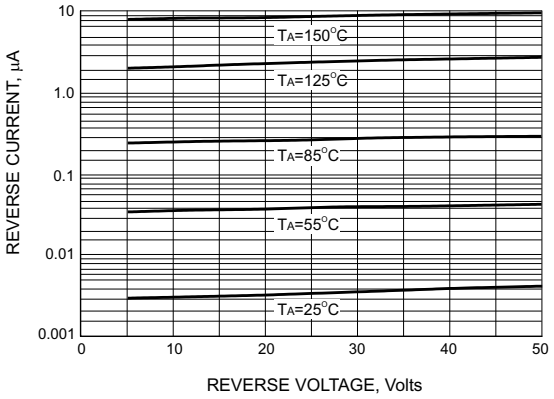
Parameter	Symbol	CDST4148	CDST4448	Units
Reverse Voltage	V_R	75	75	V
Peak Reverse Voltage	V_{RM}	100	100	V
Rectified Current (Average), Half Wave Rectification with Resistive Load and f >=50 Hz	I_O	150	150	mA
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	2.0	4.0	A
Power Dissipation Derate Above 25°C	P_{TOT}	350		mW
Maximum Forward Voltage @ IF=5mA @ IF=10mA	V_F	- 1.0	0.72 1.0	V
Maximum DC Reverse Current at Rated DC Blocking Voltage TJ= 25°C	I_R	2.5	2.5	uA
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		°C/W
Storage Temperature Range	T_J	-55 to +125		°C

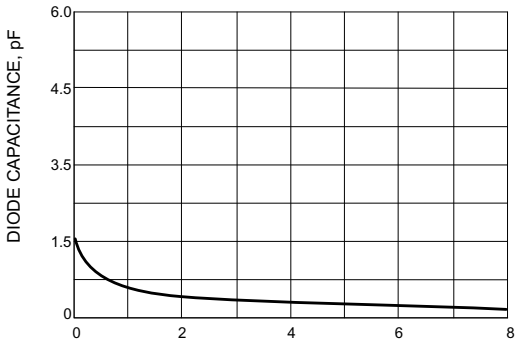
(1) C_J at V_R = 0, f = 1MHZ

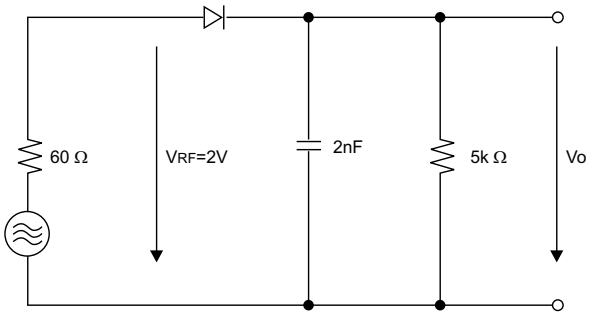
(2) From I_F = 10mA to I_R = 1mA, V_R = 6Volts, R_L = 100Ω

RATING AND CHARACTERISTIC CURVES (CDST4148)









RECTIFICATION EFFCIENCY MEASUREMENT CIRCUIT