

# Surface Mount Switching Diode

## CDST4148, CDST4448

Voltage: 75 Volts  
Power: 350 mWatts

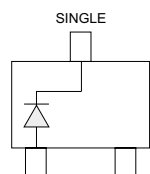


### Feature

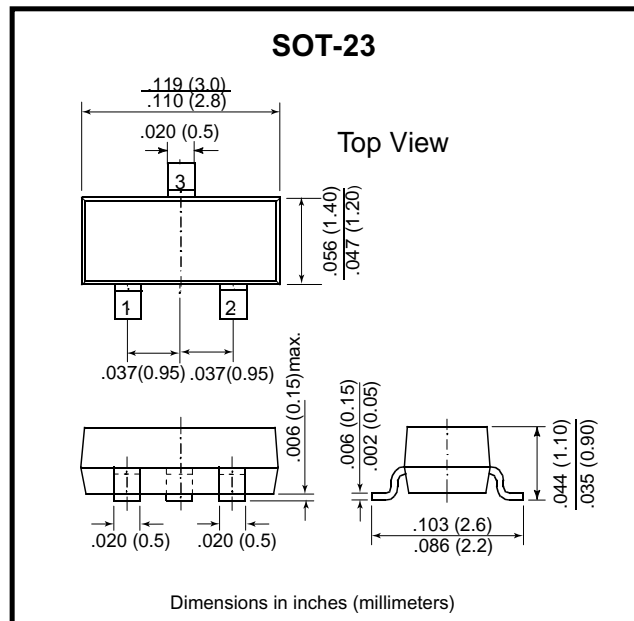
- Fast switching speed
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance

### Mechanical Data

- Case: SOT-23 Plastic Package
- Terminals: Solderable per MIL-STD-202, Method 208
- Approx. Weight: 0.008 gram



CDST4148, CDST4448



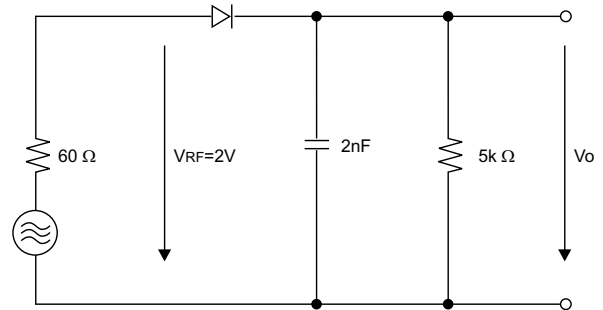
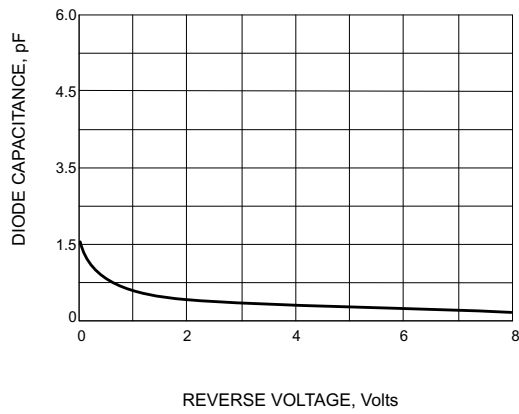
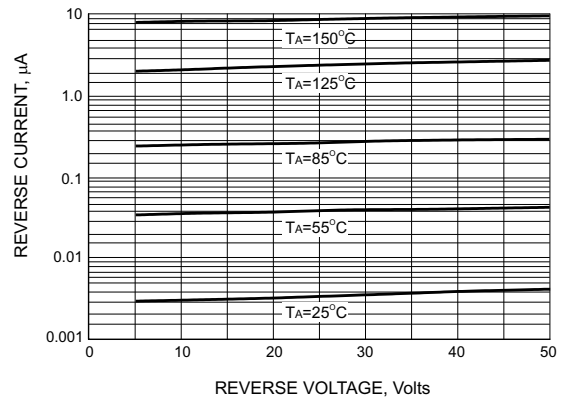
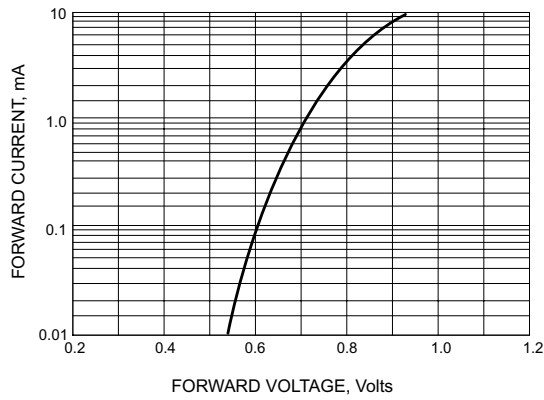
## Maximum Ratings and Electrical Characteristics

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	$\mu A$
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**