

CDST 914

Voltage: 100 Volts

Current: 200mA



Features

Fast Switching Speed

Surface Mount Package Ideally Suite4d for Automatic Insertion

For General Purpose Switching Applications

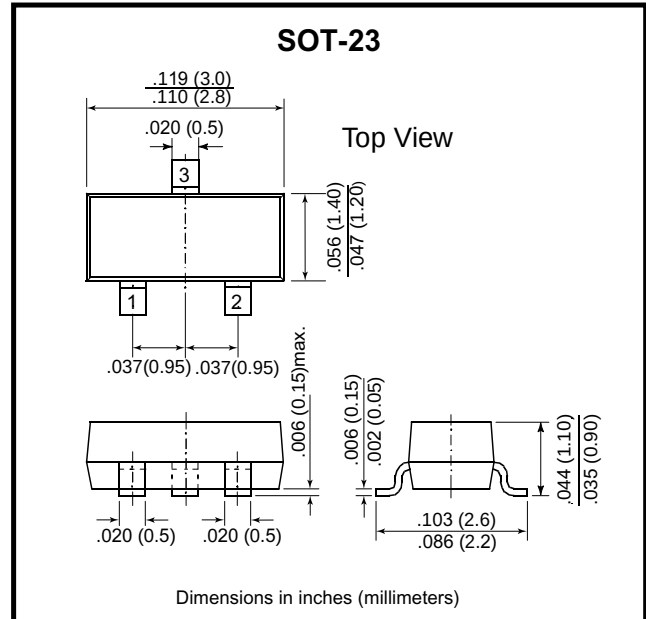
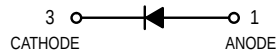
High Conductance

Mechanical Data

Case: SOT -23, Plastic

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

Approx. Weight: 0.008 gram



Maximum Ratings

Rating	Symbol	Value	Units
Continuous Reverse Voltage	V_R	100	V _{DC}
Peak Forward Current	I_F	200	mAdc
Peak Forward Surge Current	$I_{FM}(\text{surge})$	500	mAdc

Thermal Characteristics

Characteristic	Symbol	Max	Units
Total Device Dissipation FR-5 Board(1) $T_A = 25^\circ\text{C}$	P_D	225	mW
Derate above 25°C		1.8	mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	$^\circ\text{C/W}$
Total Device Dissipation Alumina Substrate,(2) $T_A = 25^\circ\text{C}$	P_D	300	mW
Derate above 25°C		2.4	mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	$^\circ\text{C/W}$
Junction and Storage Temperature	T_J, T_{stg}	-55 to +150	$^\circ\text{C}$

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

Characteristic (OFF CHARACTERISTICS)	Symbol	Min	Max	Units
Reverse Breakdown Voltage ($I_{BR} = 100 \mu\text{Adc}$)	$V_{(BR)}$	100	-	Vdc
Reverse Voltage Leakage Current $V_R = 20 \text{ Vdc}$	I_R	-	25	nAdc
$V_R = 75 \text{ Vdc}$		-	50	μAdc
Diode Capacitance ($V_R = 0, f = 1.0 \text{ MHz}$)	C_T		4.0	pF
Forward Voltage $I_F = 10 \text{ mAdc}$	V_F	-	1.0	Vdc
Reverse Recovery Time ($I_F = I_R = 10 \text{ mAdc}$)	T_{rr}		4.0	nS

1.FR-5 = 1.0 X 0.75X 0.062 in. 2.Alumina = 0.4X 0.3X 0.024 in. 99.5% alumina.

RATING AND CHARACTERISTIC CURVES (CDST914)

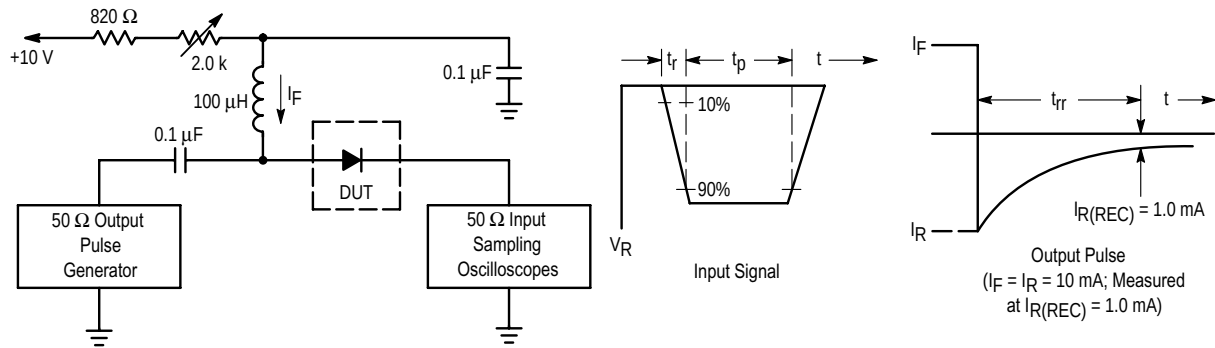


Figure 1. Recovery Time Equivalent Test Circuit

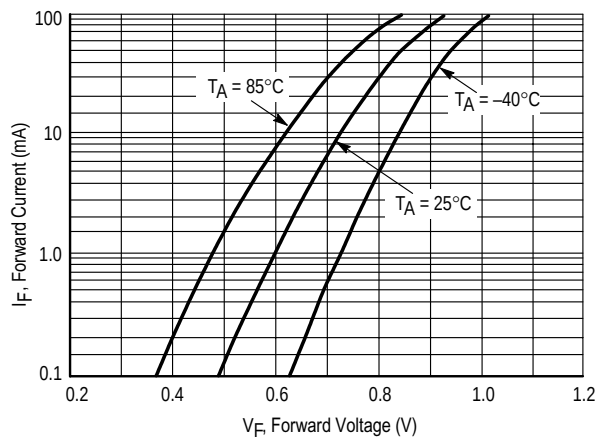


Figure 2. Forward Voltage

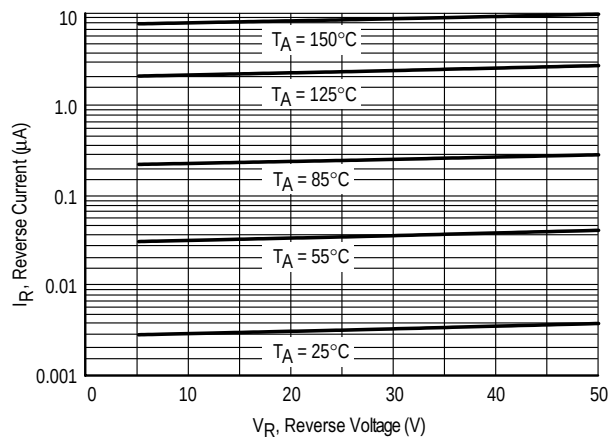


Figure 3. Leakage Current

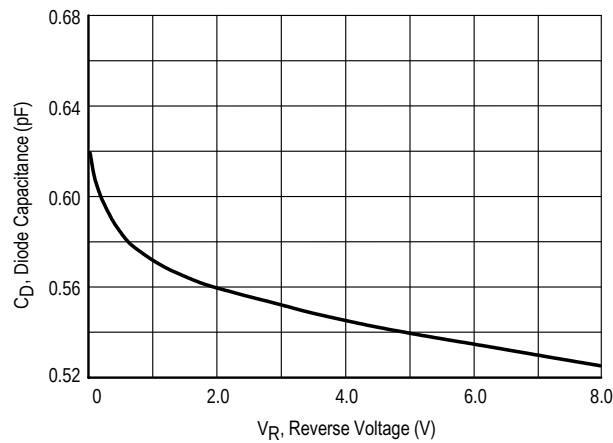


Figure 4. Capacitance