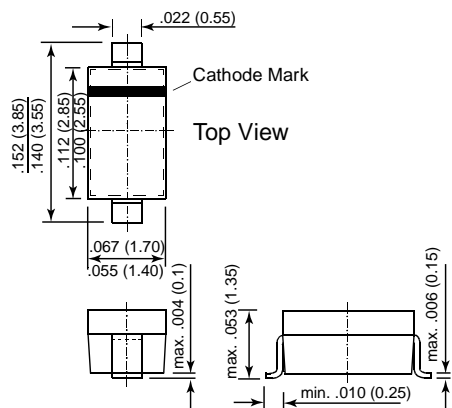


GSD2004SW

SMALL SIGNAL DIODES

SOD-123



Dimensions in inches and (millimeters)

FEATURES

- ◆ Silicon Epitaxial Planar Diode
- ◆ Fast switching dual in-series diode, especially suited for applications requiring high voltage capability



MECHANICAL DATA

Case: SOD-123 plastic case

Weight: approx. 0.01 g

Marking Code: DB6

MAXIMUM RATINGS AND THERMAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified (per diode)

	SYMBOL	VALUE	UNIT
Continuous Reverse Voltage	V _R	240	Volts
Peak Repetitive Reverse Voltage	V _{RRM}	300	Volts
Peak Repetitive Reverse Current	I _o	200	mA
Continuous Forward Current	I _F	225	mA
Peak Repetitive Forward Current	I _{RFM}	625	mA
Non-Repetitive Peak Forward Current at t _p = 1 μs	I _{FSM}	4.0	A
at t _p = 1 s	I _{FSM}	1.0	A
Power Dissipation	P _{tot}	350	mW
Maximum Junction Temperature	T _j	150	°C
Storage Temperature Range	T _S	-65 to +150	°C
Typical Thermal Resistance Junction to Ambient Air	R _{θJA}	357	°C/W

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ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified (per diode).

	<i>SYMBOL</i>	<i>MIN.</i>	<i>TYP.</i>	<i>MAX.</i>	<i>UNIT</i>
Reverse Breakdown Voltage at $I_R=100\mu\text{A}$	V_{BR}	300	-	-	Volts
Leakage Current at $V_R = 240\text{ V}$ at $V_R = 240\text{ V}$, $T_j = 150^\circ\text{C}$	I_R I_R	- -	- -	100 100	nA μA
Forward Voltage at $I_F = 20\text{ mA}$ at $I_F = 100\text{ mA}$	V_F V_F	- -	0.83 -	0.87 1.00	Volts Volts
Capactiance at $V_F = V_R = 0$; $f = 1\text{MHz}$	C_{tot}	-	-	5.0	pF
Reverse Recovery Time $I_F = I_A = 30\text{ mA}$, $I_{rr} = 3.0\text{ mA}$ $R_L = 100\ \Omega$	t_{rr}	-	-	50	ns