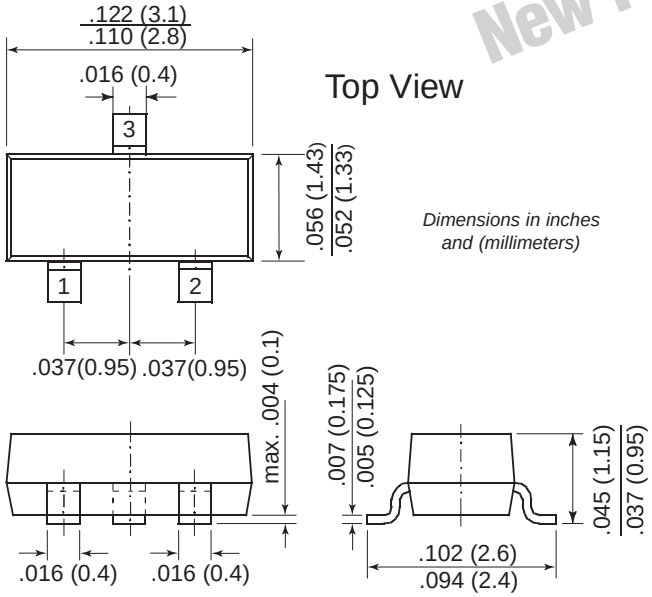
GENERAL SEMICONDUCTOR®

GSD2004A

Dual Common-Anode Small-Signal Switching Diode

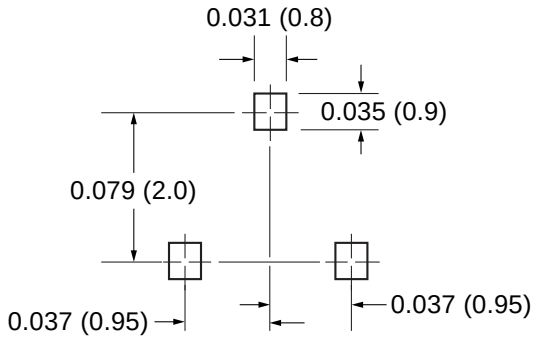
New Product

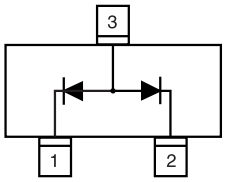
TO-236AB (SOT-23)



Dimensions in inches and (millimeters)

Mounting Pad Layout





Top View

Features

- Silicon Epitaxial Planar Diode
- Fast switching dual common-anode diode, especially suited for applications requiring high voltage capability

Mechanical Data

Case: SOT-23 (TO-236AB) Plastic Package

Weight: approx. 0.008g

Marking Code: DBA

Packaging Codes/Options:

E8/10K per 13” reel (8mm tape), 30K/box

E9/3K per 7” reel (8mm tape), 30K/box

Maximum Ratings and Thermal Characteristics

T_A = 25°C unless otherwise noted

Parameter		Symbol	Value	Unit
Continuous Reverse Voltage		V_R	240	V
Peak Repetitive Reverse Voltage		V_{RRM}	300	V
Peak Repetitive Reverse Current		I_{RRM}	200	mA
Forward Current (continuous)		I_F	225	mA
Peak Repetitive Forward Current		I_{RFM}	625	mA
Non-Repetitive Peak Forward Current	at tp = 1μs at tp = 1s	I_{FSM}	4.0 1.0	A
Power Dissipation		P_{tot}	350(1)	mW
Typical Thermal Resistance Junction to Ambiant Air		$R_{\theta JA}$	357(1)	°C/W
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_S	–65 to +150	°C

Note:

(1) Device on Fiberglass Substrate, see layout on bottom of second page

9/12/01

GENERAL SEMICONDUCTOR®

GSD2004A

Dual Common-Anode Small Signal Switching Diode

Electrical Characteristics

T_J = 25°C unless otherwise noted

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	V_{BR}	I_R = 100μA	300	—	—	V
Leakage Current	I_R	V_R = 240V V_R = 240V, T_j = 150°C	— —	— —	100 100	nA μA
Forward Voltage	V_F	I_F = 20mA I_F = 100mA	— —	0.83 —	0.87 1.00	V
Capacitance	C_{tot}	V_F = V_R = 0, f = 1MHz	—	—	5.0	pF
Reverse Recovery Time	t_{rr}	I_F = I_A = 30mA I_{rr} = 3.0mA, R_L = 100Ω	—	—	50	ns

(1) Device on fiberglass substrate, see layout at bottom of page

Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Fig. 1 – Typical Instantaneous Forward Characteristics

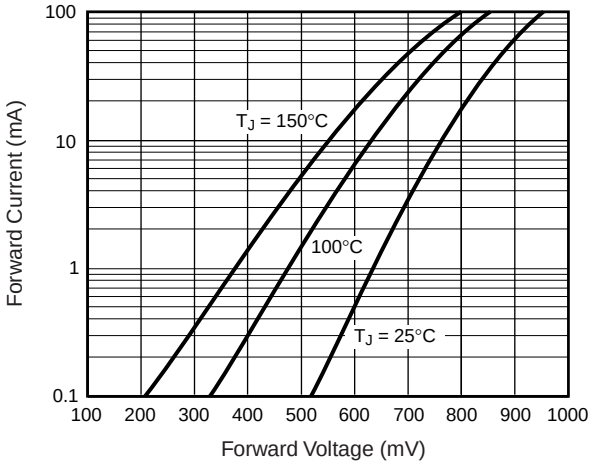
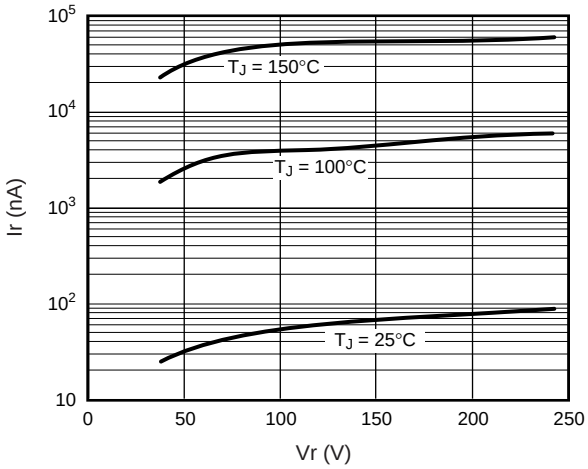
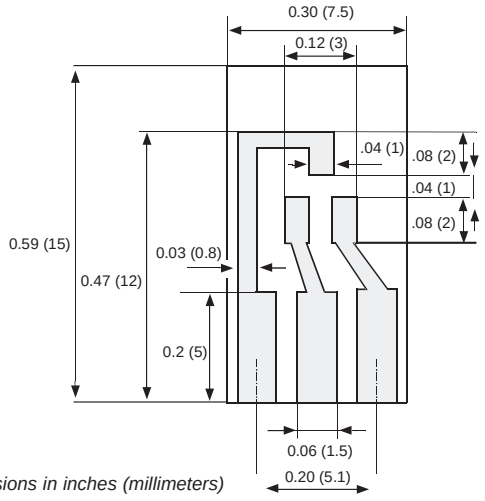


Fig. 2 – Typical Reverse Characteristics



Layout for $R_{\theta JA}$ test

Thickness:
Fiberglass 0.059 in. (1.5 mm)
Copper leads 0.012 in. (0.3 mm)



Dimensions in inches (millimeters)