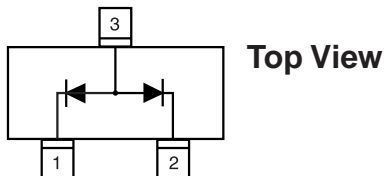
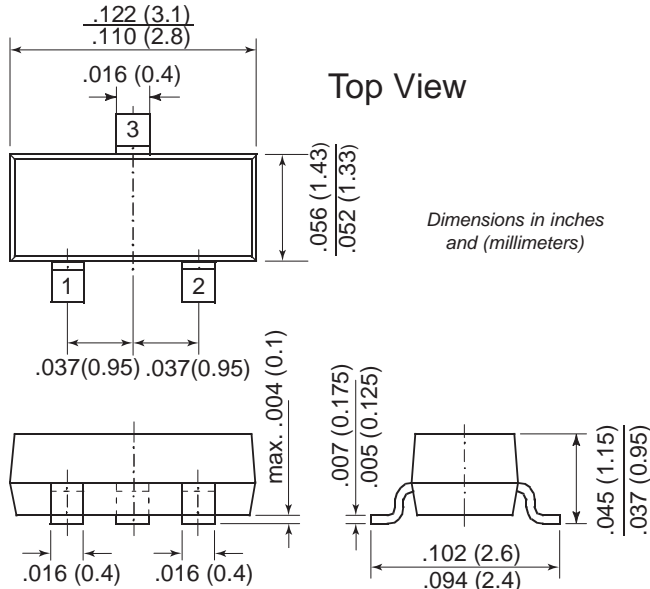
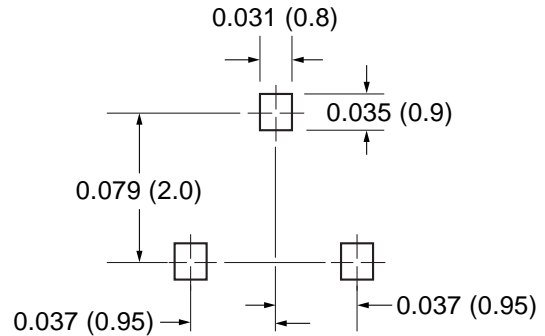




## Dual Common-Anode Small-Signal Switching Diode

**TO-236AB (SOT-23)**

**Mounting Pad Layout**


### 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

$T_A = 25^\circ\text{C}$  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	$I_{FSM}$	4.0 1.0	A
		at $t_p = 1\mu\text{s}$ at $t_p = 1\text{s}$	
Power Dissipation	$P_{tot}$	350 <sup>(1)</sup>	mW
Typical Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	357 <sup>(1)</sup>	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_S$	-65 to +150	$^\circ\text{C}$

**Note:**

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

## Electrical Characteristics

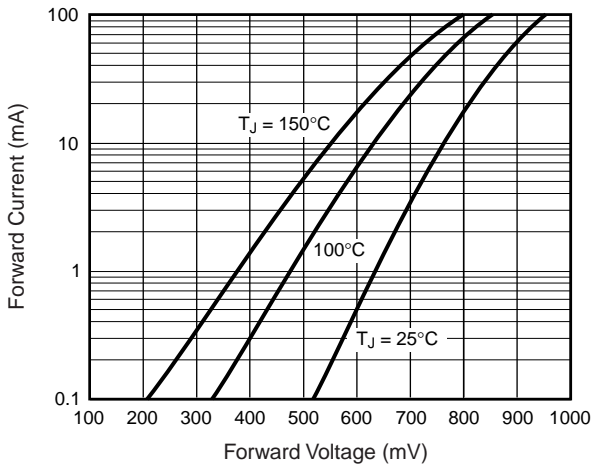
$T_J = 25^\circ\text{C}$  unless otherwise noted

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

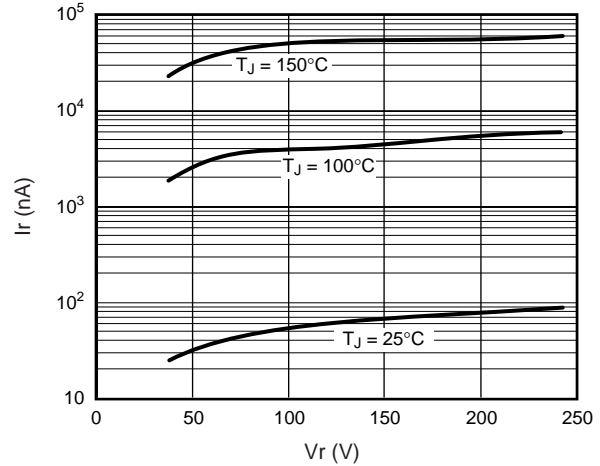
(1) Device on fiberglass substrate, see layout at bottom of page

## Ratings and Characteristic Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

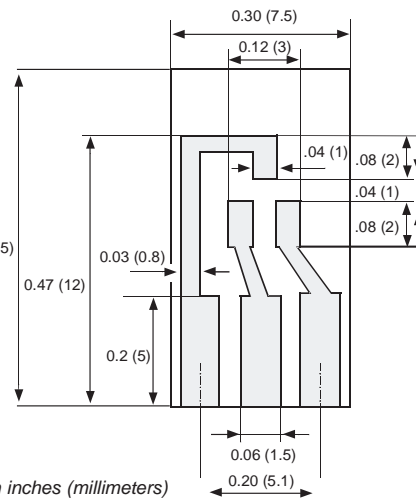
**Fig. 1 – Typical Instantaneous Forward Characteristics**



**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)



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