

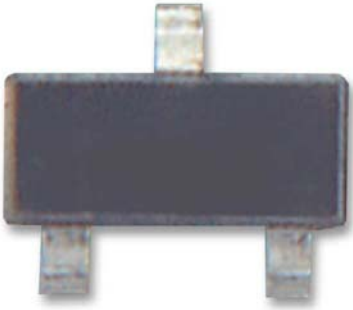
TBAV70

Low Power Signal Diodes



Features:

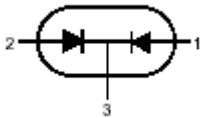
- Silicon planar epitaxial high-speed diodes.
- Supplied on 8mm tape.



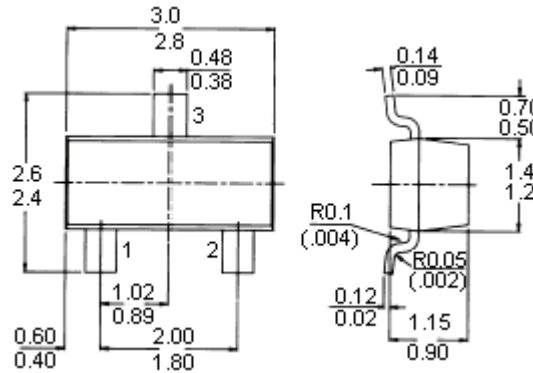
SOT-23 Formed SMD Package

Pin Configuration

- 1 = Anode
- 2 = Anode
- 3 = Cathode



Package Outline Details



Dimensions : Millimetres

Height	Width	Depth
1.12	3.05	2.5

Dimensions : Millimetres

Absolute Maximum Ratings

Description	Symbol		Values	Unit
Continuous reverse voltage	V_R	maximum	70	V
Repetitive peak reverse voltage	V_{RRM}		75	
Repetitive peak forward current	I_{FRM}		450	mA
Junction temperature	T_j		150	°C
Forward voltage $I_F = 50\text{mA}$	V_F	<	1.0	V
Reverse recovery time when switched from $I_F = 10\text{mA}$ to $I_R = 10\text{mA}$; $R_L = 100\Omega$; measured at $I_R = 1\text{mA}$	t_{rr}	<	4	ns
Recovery charge when switched from $I_F = 10\text{mA}$ to $V_R = 5\text{V}$; $R_L = 100\Omega$	Q_S	<	45	pc



Ratings (per diode)

Limiting values

Description	Symbol		Values	Unit
Continuous reverse voltage	V_R		70	V
Repetitive peak reverse voltage	V_{RRM}		75	V
Forward current (DC)	I_F	maximum	215	mA
Repetitive peak forward current	I_{FRM}		450	
Non-repetitive peak forward current (per crystal) $t = 1\text{nS}$ $t = 1\text{mS}$ $t = \text{s}$	I_{FSM}		4	A
	I_{FSM}		1	
	I_{FSM}	0.5		
Storage temperature range	T_{stg}	-55 to +150		°C
Junction temperature	T_j	maximum	150	
Thermal Resistance				
Description	Symbol		Values	Unit
From junction to ambient $T_j = 25\text{ °C}$ unless otherwise specified	$R_{th(j-a)}$	=	500	K/W
Forward voltage $I_F = 1\text{ mA}$ $I_F = 10\text{ mA}$ $I_F = 50\text{ mA}$ $I_F = 150\text{ mA}$	V_F V_F V_F V_F	< < < <	715 855 1000 1250	mV
Reverse current $V_R = 25\text{V}; T_j = 150\text{°C}$ $V_R = 70\text{V}$ $V_R = 70\text{V}; T_j = 150\text{°C}$	I_R I_R I_R	< < <	60 2.5 100	mA
Diode capacitance $V_R = 0; f = 1\text{MHz}$	C_d	<	1.5	pF
Forward recovery voltage when switched to $I_F = 10\text{mA}, t_r = 20\text{ns}$	V_{fr}	<	1.75	V

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Low Power Signal Diodes



Specifications

Connection	V_{RRM} maximum (V)	I_F maximum (mA)	V_F maximum (V) at $I_F = 10\text{mA}$	Device Marking	Package	Part Number
Dual Diode	70	200	1	A4	SOT - 23	TBAV70

Notes:

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