

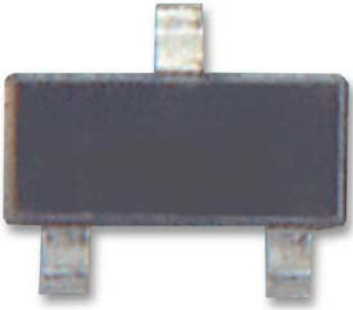
# TBAV70

## Low Power Signal Diodes



### Features:

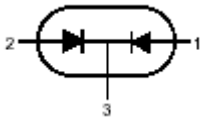
- Silicon planar epitaxial high-speed diodes.
- Supplied on 8mm tape.



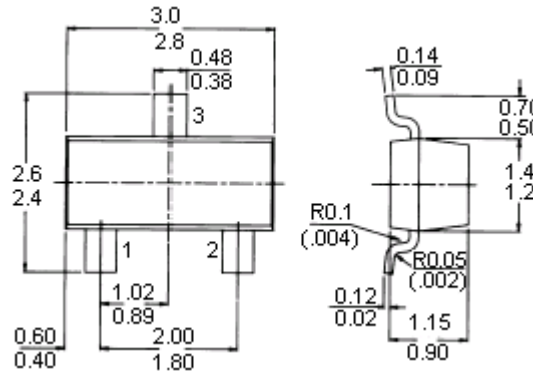
### SOT-23 Formed SMD Package

#### 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



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### 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	
<b>Thermal Resistance</b>				
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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### 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

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