

Features:

- Silicon planar epitaxial high-speed diodes
- Silicon planar high-speed switching series diode pair

Absolute Maximum Ratings:

Parameters	Symbol		Value	Units
Continuous Reverse Voltage	V_R	Maximum	75	V
Repetitive Peak Reverse Voltage	V_{RRM}		85	
Repetitive Peak Forward Current	I_{FRM}		450	mA
Junction Temperature	T_J		150	°C
Forward Voltage at $I_F = 50\text{mA}$	V_F	<	1	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) (at $T_A = 25^\circ\text{C}$ unless otherwise specified)

Limiting Values	Symbol		Value	Units
Continuous Reverse Voltage	V_R	Maximum	75	V
Repetitive Peak Reverse Voltage	V_{RRM}		85	
Forward Current (DC)	I_F		215	mA
Repetitive Peak Forward Current	I_{FRM}		450	

Dual Diode



Limiting Values	Symbol		Value	Units
Non-Repetitive Peak Forward Current (per Crystal) $t = 1\mu s$ $t = 1ms$ $t = 1s$	I_{FSM}	Maximum	4 1 0.5	A
Storage Temperature Range	T_{stg}	-	-55 to +150	°C
Junction Temperature	T_j	Maximum	150	

Thermal Resistance

From Junction To Ambient	$R_{th(j-a)}$	=	500	K/W
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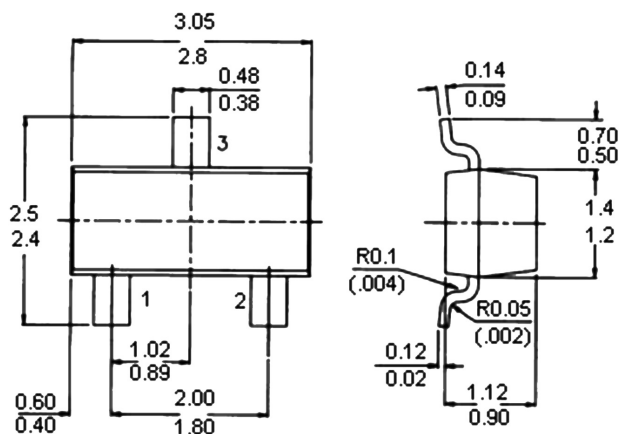
Characteristics (per diode) (at $T_A = 25^\circ C$ unless otherwise specified)

Limiting values	Symbol		Value	Units
$T_j = 25^\circ C$ unless otherwise specified	-	-	-	-
Forward voltage $I_F = 1mA$ $I_F = 10mA$ $I_F = 50mA$ $I_F = 150mA$	V_F	<	715 855 1,000 1,250	mV
Reverse current $V_R = 25V$; $T_j = 150^\circ C$ $V_R = 75V$ $V_R = 75V$; $T_j = 150^\circ C$	I_R	<	30 1 50	mA
Diode capacitance $V_R = 0$; $f = 1MHz$	C_d	<	2	pF
Forward recovery voltage when switched to $I_F = 10mA$; $t_r = 20ns$	V_{fr}	<	1.75	V

Dual Diode



Package Outline Details



Dimensions : Millimetres

Part Number Table

Description	Part Number
Diode, Dual, SOT-23	TBAW56

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