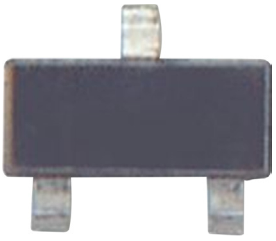
Switching Diode
SOT-23

RoHS Compliant



Features:

- Silicon Planar Epitaxial High-Speed Diode

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}		500	mA
Junction Temperature	T_j		150	°C
Forward Voltage at I_F = 50mA	V_F	<	1	V
Reverse Recovery Time When Switched from I_F = 10mA to I_R = 10mA; R_L = 100W; measured at I_R = 1mA	t_{rr}	<	4	nS
Recovery Charge When Switched from I_F = 10mA to V_R = 5V; R_L = 100W	Q_S	<	45	pC

Ratings (per diode) (at T_A = 25°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}		500	

Limiting Values	Symbol		Value	Units
Non-Repetitive Peak Forward Current (per Crystal) t = 1µs 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	

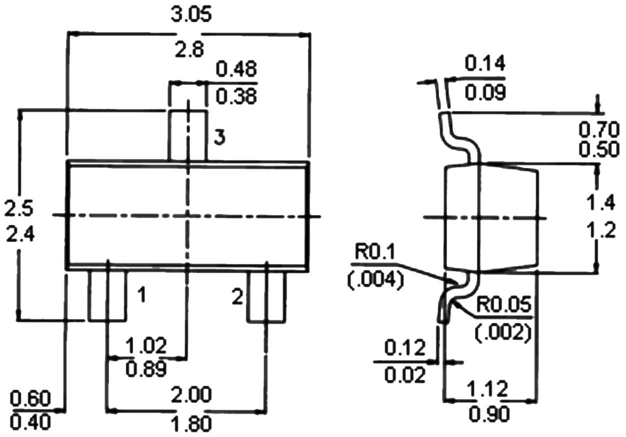
Thermal Resistance

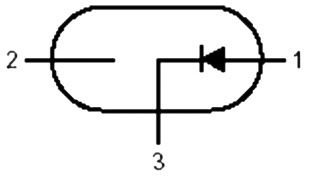
From Junction To Ambient	$R_{th(j-a)}$	=	500	K/W

Characteristics (per diode) (at $T_A = 25°C$ unless otherwise specified)

Limiting values	Symbol		Value	Units
$T_j = 25°C$ 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 $V_R = 25V$; $T_j = 150°C$ $V_R = 75V$ $V_R = 75V$; $T_j = 150°C$	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
Reverse recovery time When switched from $I_F = 10mA$ to I_R 10mA; $R_L = 100W$; measured at $I_R = 1mA$	trr		4	nS
Recovery charge When switched from $I_F = 10mA$ to $V_R = 5V$; $R_L = 100W$	QS		45	pC

Package Outline Details





Pin Configuration

1. Anode
2. NC
3. Cathode

Dimensions : Millimetres

Part Number Table

Description	Part Number
Diode, Switching, SOT-23	TBAS16

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