

225mW Surface Mount Switching Diode



RoHS
Compliant



Features:

- Fast switching speed
- For general purpose switching applications
- High conductance
- Silicon epitaxial planar chip

Mechanical Data:

Epoxy	: UL94-V0 rated flame retardant
Case	: Molded plastic, SOT-23
Terminals	: Solder plated, solderable per MIL-STD-750, method 2026
Mounting position	: Any
Weight	: Approximated 0.008 gram

Max. Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Units
Reverse Voltage	V _R	75	V
Forward Current	I _F	200	mA
Peak Forward Surge Current	I _{FM}	500	mA
Non-Repetitive Peak Forward Surge Current	I _{FSM}	2 1	A
Thermal Characteristics			
Total Device Dissipation FR-5 Board ⁽¹⁾ , T _A = 25°C Derate above 25°C	P _D	225 1.8	mW mW/°C
Thermal Resistance Junction to Ambient	R _{θJA}	556	°C/W
Total Device Dissipation FR-5 Substrate ⁽²⁾ , T _A = 25°C Derate above 25°C	P _D	300 2.4	mW mW/°C
Thermal Resistance Junction to Ambient	R _{θJA}	417	°C/W
Operating Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-65 to +150	°C

⁽¹⁾ FR-5 = 1.0×0.75×0.062 in

⁽²⁾ Alumina = 0.4×0.3×0.024 in.9935% alumina

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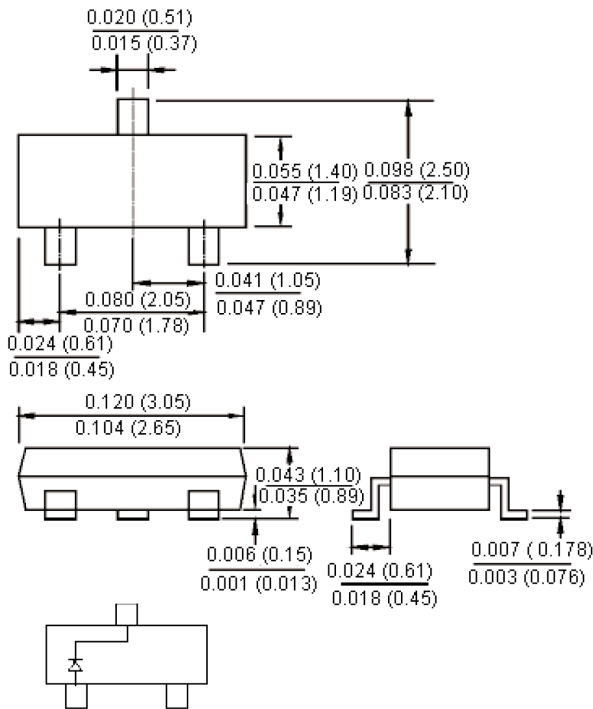


Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Min.	Max.	Units
Reverse Breakdown Voltage (I _{BR} = 100µAdc)	V _{BR}	75	-	V
Reverse Voltage Leakage Current at V _R = 75V, T _J = 25°C at V _R = 25V, T _J = 150°C at V _R = 75V, T _J = 150°C	I _R	-	1 30 50	µA
Diode Capacitance (V _R = 0V, f = 1.0MHz)	C _D	-	2	pF
Reverse Recovery Time (I _F = I _R = 10mA, V _R = 5.0V DC, I _R (REC) = 1.0mA, R _L = 100Ω)	T _{RR}	-	6	ns
Forward Voltage at I _F = 1.0mA at I _F = 10mA at I _F = 50mA at I _F = 150mA	V _F	-	715 855 1000 1250	mV

SOT-23



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Diode, High Speed, SOT-23	BAS16+

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