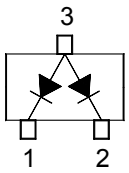
BAW56 Silicon Epitaxial Planar Switching Diode

Features

- Small package
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance



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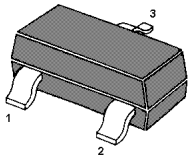


SOT-23 Plastic Package

Applications

- Ultra high speed switching application

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	85	V
Continuous Reverse Voltage	V_R	75	V
Forward Current (DC) Single Diode Loaded Double Diode Loaded	I_F	215 125	mA
Repetitive Peak Forward Current	I_{FRM}	450	mA
Non-repetitive Peak Forward Surge Current at t = 1 s at t = 1 ms at t = 1 µs	I_{FSM}	0.5 1 4	A
Power Dissipation	P_{tot}	350	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	357	°C/W
Operating Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Max.	Unit
Forward Voltage			
at I_F = 1 mA	V_F	715	mV
at I_F = 10 mA	V_F	855	mV
at I_F = 50 mA	V_F	1	V
at I_F = 150 mA	V_F	1.25	V
Reverse Current			
at V_R = 25 V	I_R	30	nA
at V_R = 75 V	I_R	1	µA
at V_R = 25 V, T_J = 150 °C	I_R	30	µA
at V_R = 75 V, T_J = 150 °C	I_R	50	µA
Diode Capacitance at V_R = 0 , f = 1 MHz	C_d	2	pF
Reverse Recovery Time at I_F = I_R = 10 mA, R_L = 100 Ω	t_{rr}	4	ns

Typical Characteristics

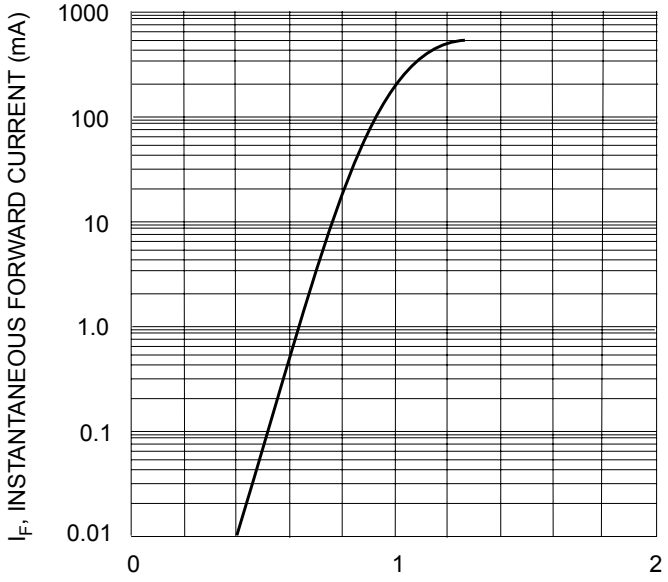


Fig. 1 Forward Characteristics

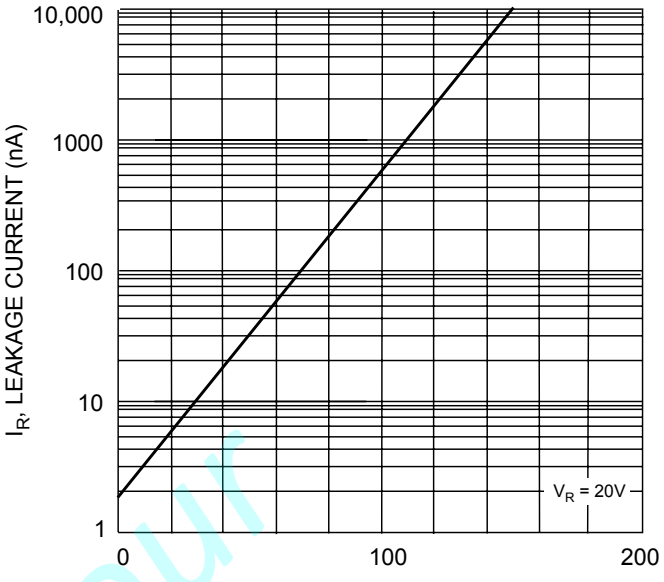


Fig. 2 Leakage Current vs Junction Temperature

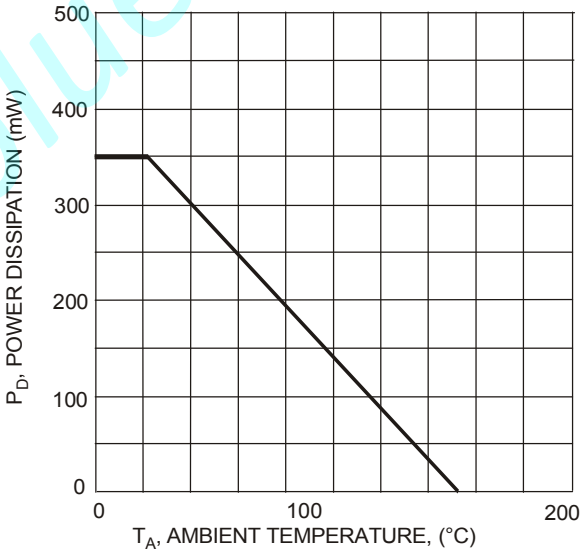
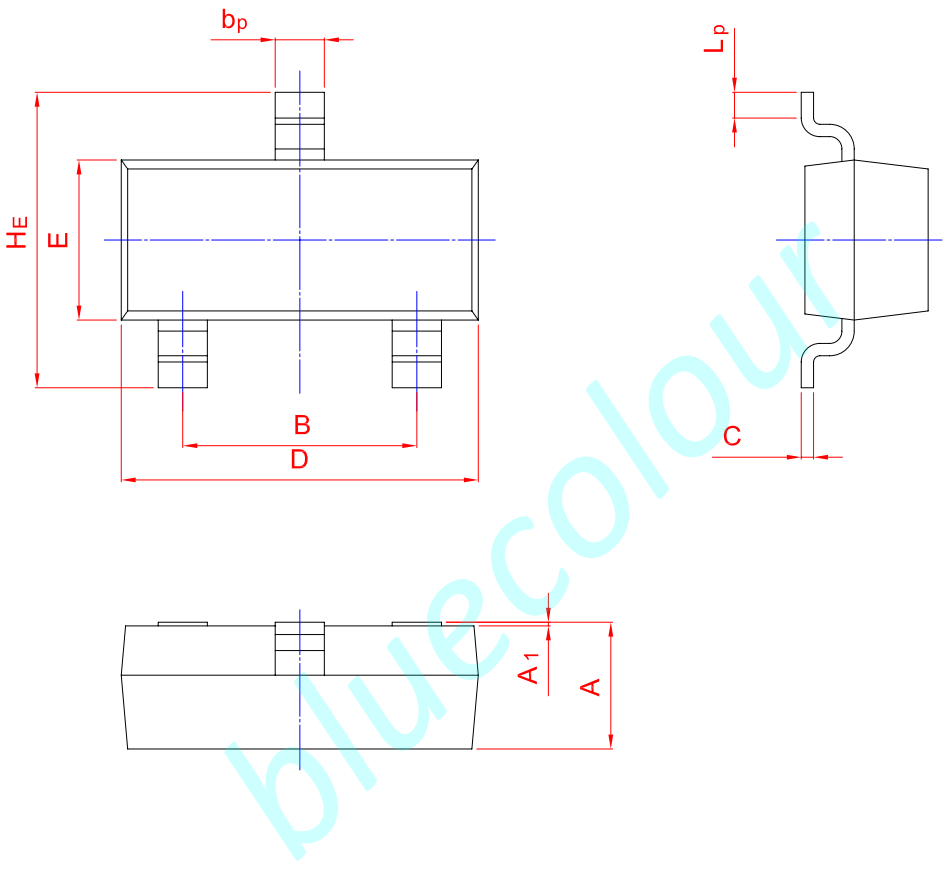


Fig. 3 Power Derating Curve, Total Package

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads **SOT-23**



UNIT	A	B	b_p	C	D	E	H_E	A_1	L_p
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20