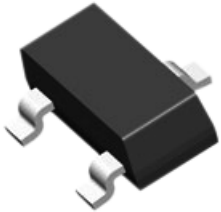
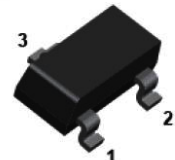
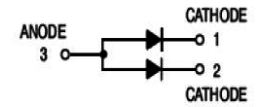


Surface Mount Switching Diode



Features:

- For High-Speed Switching Applications
- Common Anode



SOT-23

Applications:

High speed switching application

Max. Rating @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Limits	Unit
Non-repetitive peak reverse voltage	V_{RM}	100	V
Peak repetitive reverse voltage	V_{RRM}	75	V
Working peak reverse voltage	V_{RMS}		
DC reverse voltage	V_R		
Forward continuous current	I_F	300	mA
Non-repetitive forward surge current	I_{FSM}	2	A
@t = 1ms		1	
@t = 1s			
Power dissipation	P_D	350	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	357	$^\circ\text{C/W}$
Operating junction temperature range	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +150	$^\circ\text{C}$

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Conditions	Min.	Max.	Unit
Reverse breakdown voltage	$V_{(BR)R}$	$I_R = 2.5\mu\text{A}$	75	-	V
Forward voltage	V_F	$I_F = 1\text{mA}$ $I_F = 10\text{mA}$ $I_F = 50\text{mA}$ $I_F = 150\text{mA}$	-	715 855 1,000 1,250	V
Reverse leakage current	I_R	$V_R = 75\text{V}$ $V_R = 20\text{V}$	-	2.5 25	μA nA
Diode capacitance	C_D	$V_r = 0\text{V}$, $f = 1\text{MHz}$	-	2	pF
Reverse recovery time	t_{rr}	$I_F = I_R = 10\text{mA}$, $I_{rr} = 0.1 \times I_R$, $R_L = 100\Omega$	-	4	ns

Surface Mount Switching Diode



Typical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

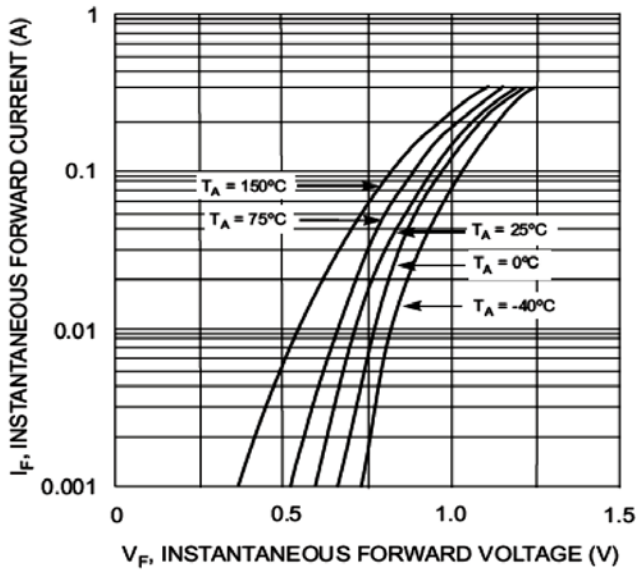


Fig. 1 Forward Characteristics

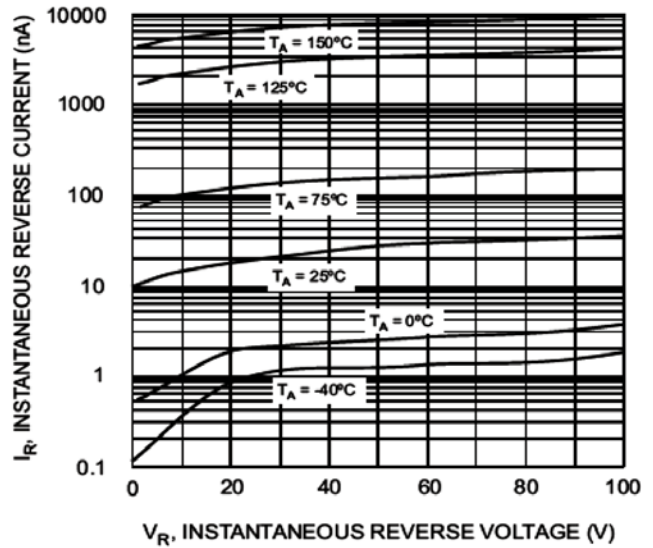


Fig. 2 Typical Reverse Characteristics

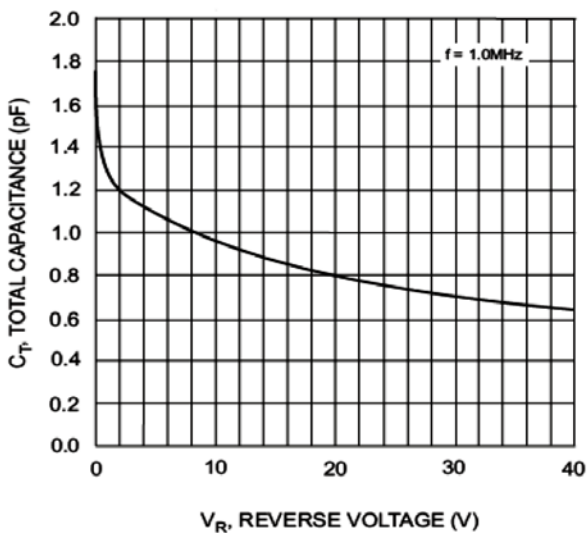


Fig. 3 Typical Capacitance vs. Reverse Voltage

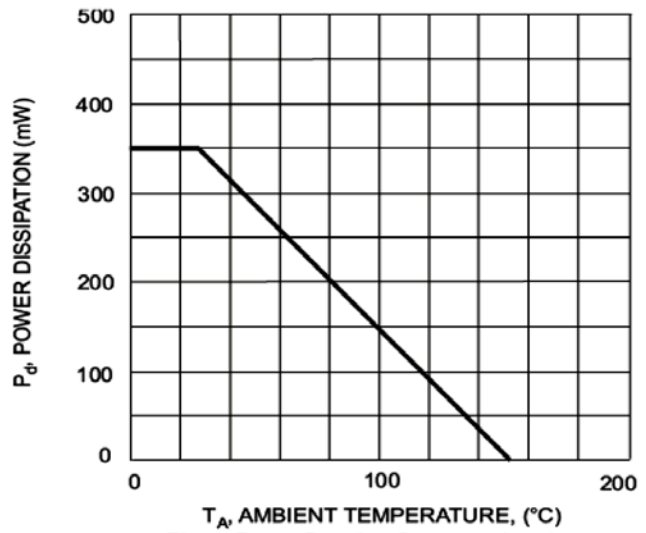


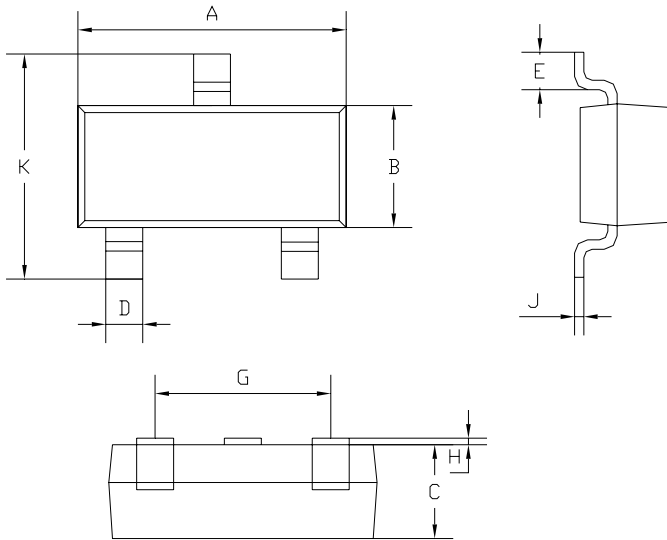
Fig. 4 Power Derating Curve, total package



Surface Mount Switching Diode

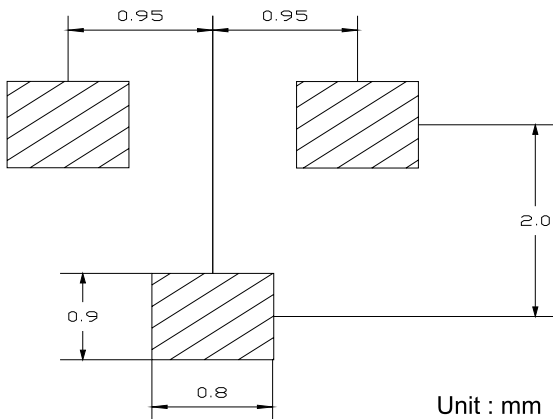


Plastic surface mounted package



SOT-23		
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1 Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1 Typical	
K	2.35	2.45
All Dimensions in mm		

Soldering Footprint



Package Information

Device	Package	Shipping
BAW56-7-F	SOT-23	3,000 / Tape & Reel

Part Number Table

Description	Part Number
Surface mount switching diode	BAW56-7-F

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