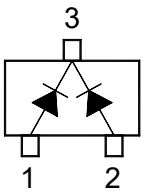
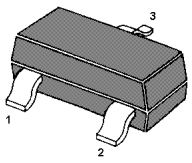
Silicon Epitaxial Planar Switching Diode

Features

- AEC-Q101 Qualified
- Small package
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance
- Halogen and Antimony Free(HAF), RoHS compliant





1. Anode 2. Anode 3. Cathode
SOT-23 Plastic Package

Applications

- Ultra high speed switching application

Absolute Maximum Ratings (T_a = 25℃)

Parameter	Symbol	Value	Unit
Maximum Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	100	V
Average Forward Current	$I_{F(AV)}$	200	mA
Maximum Peak Forward Current	I_{FM}	300	mA
Non-Repetitive Peak Forward Surge Current at t = 1 s at t = 1 μs	I_{FSM}	1 2	A
Power Dissipation [1)]	P_D	350	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	- 55 to + 150	℃

Thermal Resistance

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient [1)]	$R_{\theta JA}$	357	℃/W

[1)] Device mounted on FR-4 substrate PC board, with minimum recommended pad layout.

Characteristics at T_a = 25℃

Parameter	Symbol	Min.	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 = 20 V	I_R		25	nA
at V_R = 75 V	I_R	-	2.5	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
Reverse Breakdown Voltage at I_R = 100 μA	$V_{(BR)R}$	100	-	V
Total Capacitance at V_R = 0 V, f = 1 MHz	C_T	-	2	pF
Reverse Recovery Time at I_F = 10 mA, V_R = 6 V, I_{rr} = 0.1 × I_R, R_L = 100 Ω	t_{rr}	-	4	ns

Electrical Characteristics Curves

Fig 1. Power Derating Curve

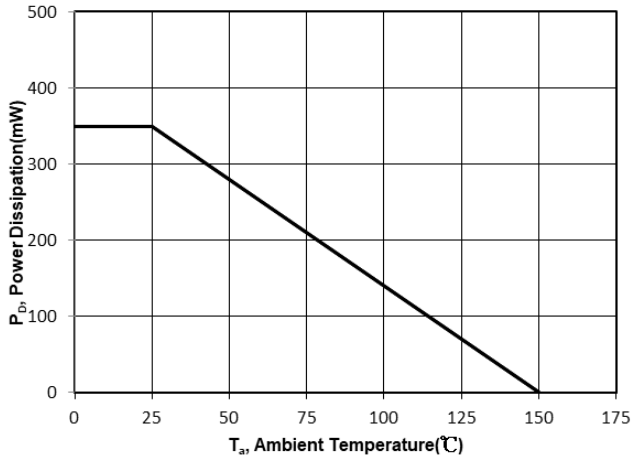


Fig 2. Capacitance Characteristics

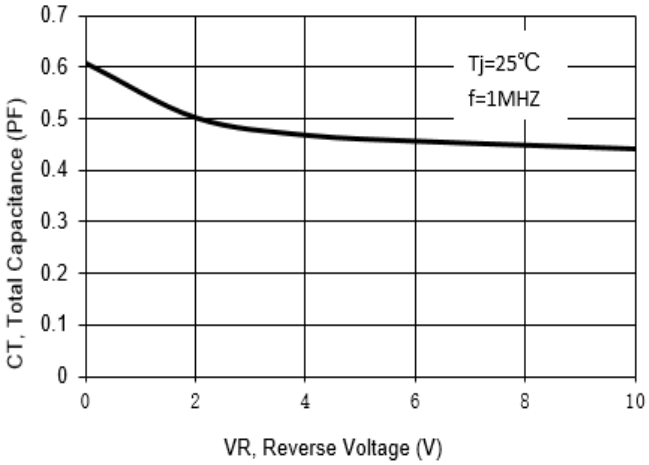


Fig 3. Reverse Characteristics

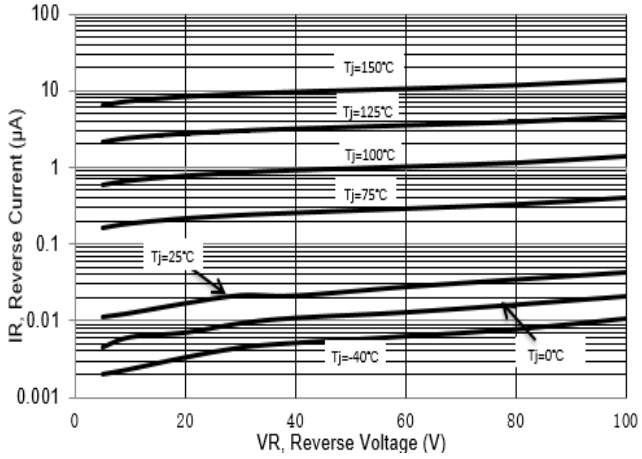
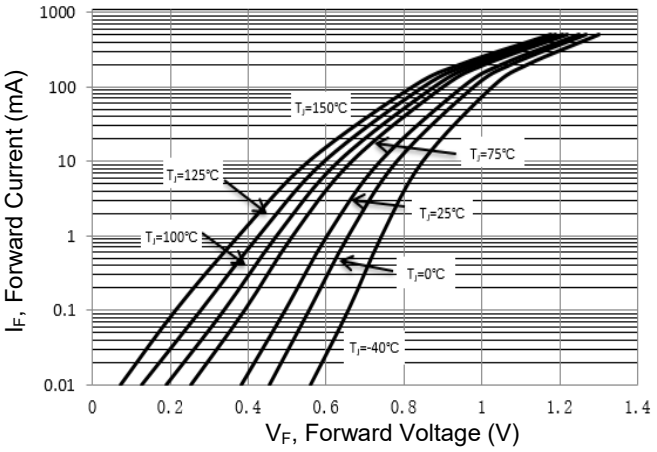
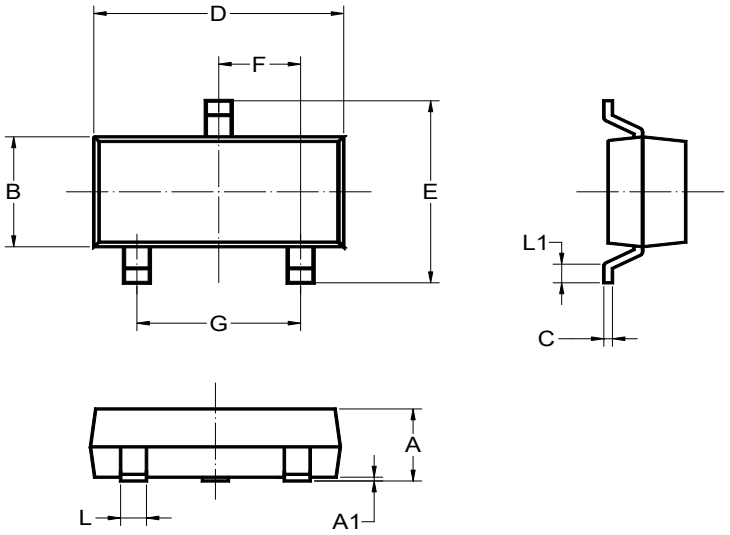


Fig 4. Forward Characteristics

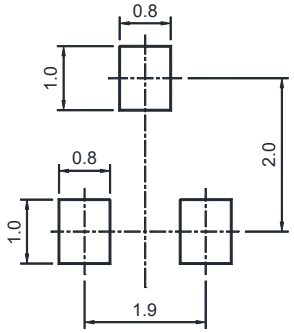


Package Outline (Dimensions in mm) SOT-23



Unit	A	A1	B	C	D	E	F	G	L	L1
mm	1.20 0.89	0.100 0.013	1.40 1.20	0.19 0.08	3.04 2.80	2.6 2.2	1.02 0.89	2.04 1.78	0.51 0.37	0.2 MIN

Recommended Soldering Footprint

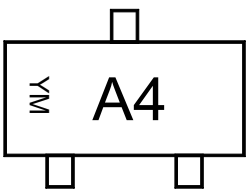


Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-23	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" A4 " = Part No.
"YM" = Date Code Marking
"Y" = Year
"M" = Month
Font type: Arial



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