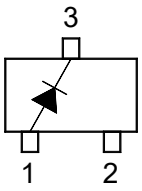
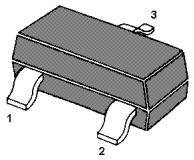
Silicon Epitaxial Planar Switching Diode

Features

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





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

Applications

- Ultra high speed switching application

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Continuous Reverse Voltage	V_R	80	V
Continuous Forward Current	I_F	215	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current t = 1 μs t = 1 ms t = 1 s	I_{FSM}	4 1 0.5	A
Power Dissipation [1)]	P_D	350	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Thermal Characteristics

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

[1)] Device mounted on FR-4 PCB with minimum recommended pad layout.

Characteristics at T_a = 25 °C

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 = 25 V	I_R	-	30	nA
at V_R = 80 V	I_R	-	0.5	µA
at V_R = 25 V, T_J = 150 °C	I_R	-	30	µA
at V_R = 80 V, T_J = 150 °C	I_R	-	50	µA
Reverse Breakdown Voltage at I_R = 100 µA	$V_{(BR)R}$	80	-	V
Diode Capacitance at V_R = 0 V, f = 1 MHz	C_d	-	2	pF
Reverse Recovery Time at I_F = 10 mA, I_{rr} = 0.1 x I_R, V_R = 6 V, R_L = 100 Ω	t_{rr}	-	4	ns

Electrical Characteristics Curves

Fig 1. Power Derating Curve

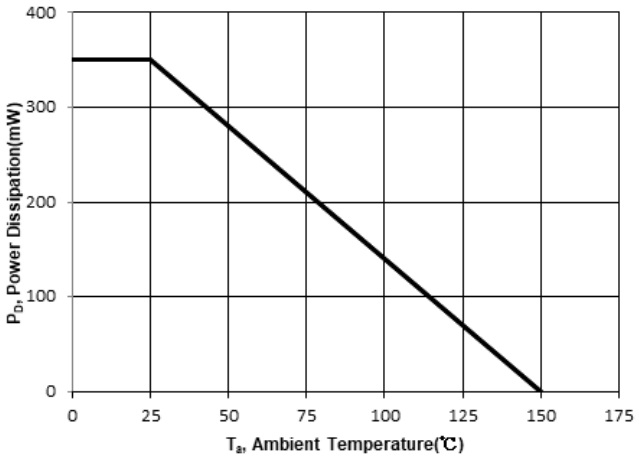


Fig 2. Capacitance Characteristics

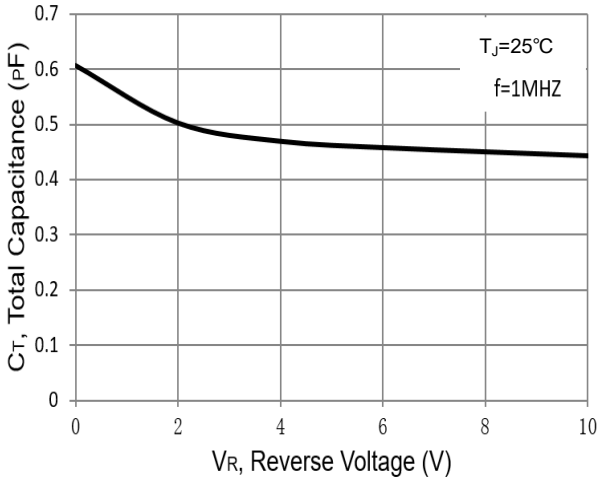


Fig 3. Reverse Characteristics

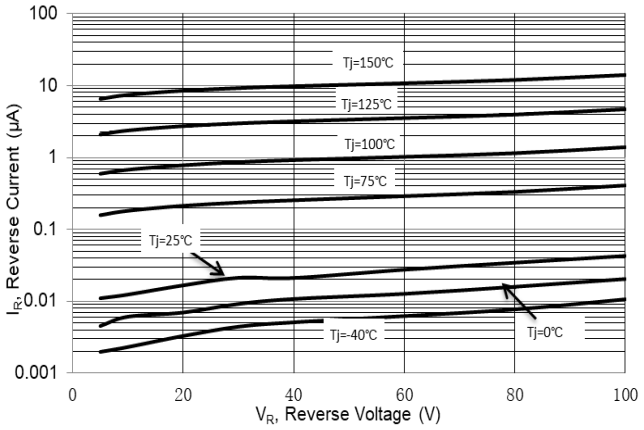
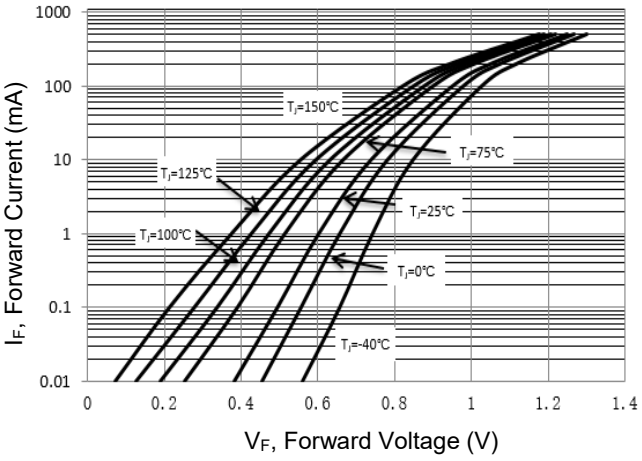
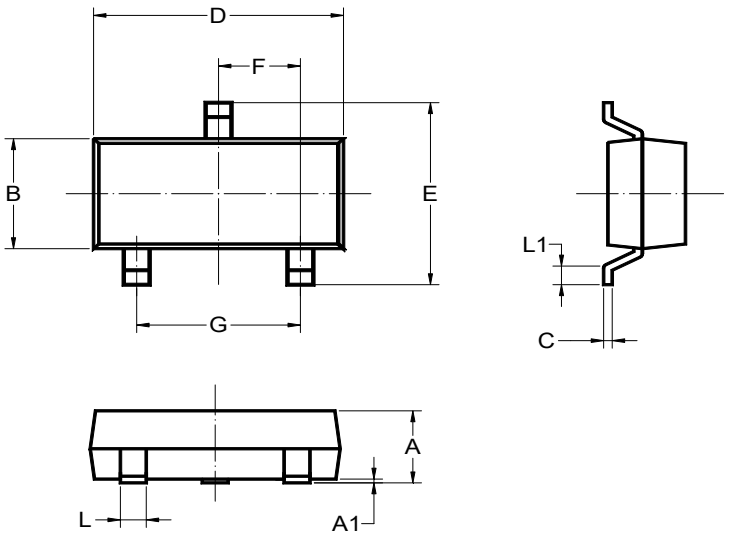


Fig 4. Forward Characteristics

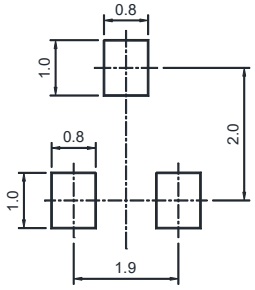


Package Outline (Dimensions in mm) SOT-23



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

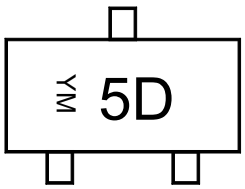


Packing information

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

" 5D " = Part No.
"YM" = Date Code Marking
"Y" = Year
"M" = Month
Font type: Arial



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