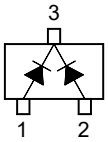
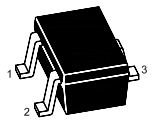
Silicon Epitaxial Planar Switching Diode

Features

• AEC-Q101 Qualified

• Halogen and Antimony Free(HAF), RoHS compliant





SOT-323 Plastic Package

1. Anode 2. Anode 3. Cathode

Applications

• Ultra high speed switching

Absolute Maximum Ratings (T_a = 25℃)

Parameter	Symbol	Value	Unit
Maximum (Peak) Reverse Voltage	V_{RM}	85	V
Reverse Voltage	V_R	80	V
Average Rectified Forward Current	$I_{F(AV)}$	100	mA
Maximum (Peak) Forward Current	I_{FM}	300	mA
Non-repetitive Peak Forward Surge Current at t = 1 μs at t = 1 s	I_{FSM}	4 0.5	A
Power Dissipation [1)]	P_D	200	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	- 55 to + 150	℃

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient [1)]	$R_{\theta JA}$	625	℃/W

[1)] Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

Characteristics at T_a = 25℃

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 100 μA	$V_{(BR)R}$	80	-	V
Forward Voltage at I_F = 100 mA	V_F	-	1.2	V
Reverse Current at V_R = 30 V at V_R = 80 V	I_R	- -	0.1 0.5	μA
Total Capacitance at V_R = 0 V, f = 1 MHz	C_T	-	3	pF
Reverse Recovery Time at I_F = 10 mA , I_{rr} = 0.1 × I_R , V_R = 6 V, R_L = 100 Ω	t_{rr}	-	4	ns

Electrical Characteristics Curves

Fig 1. Power Derating Curve

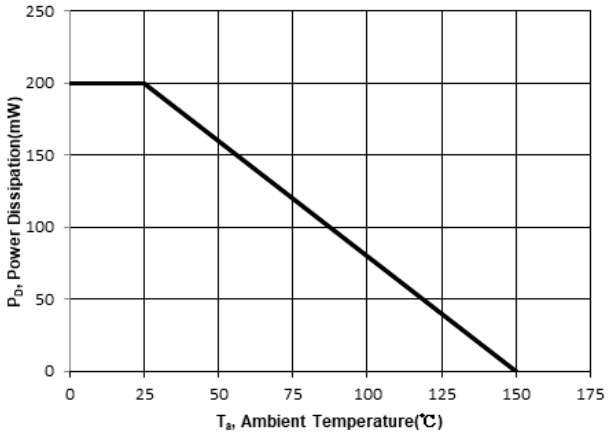


Fig 2. Total Capacitance vs. Reverse Voltage

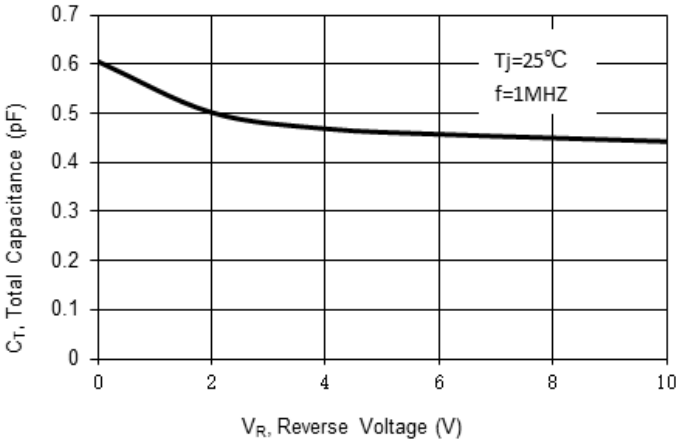


Fig 3. Reverse Current vs. Reverse Voltage

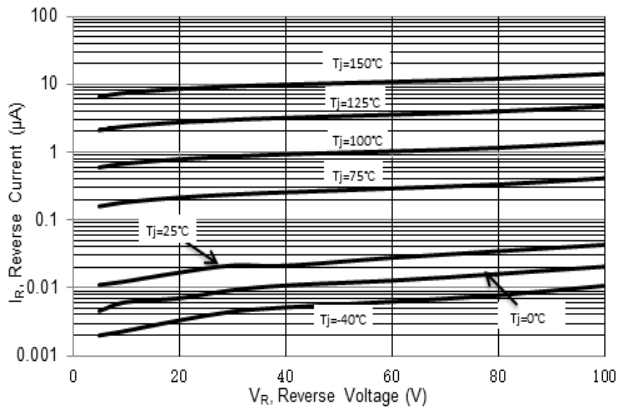
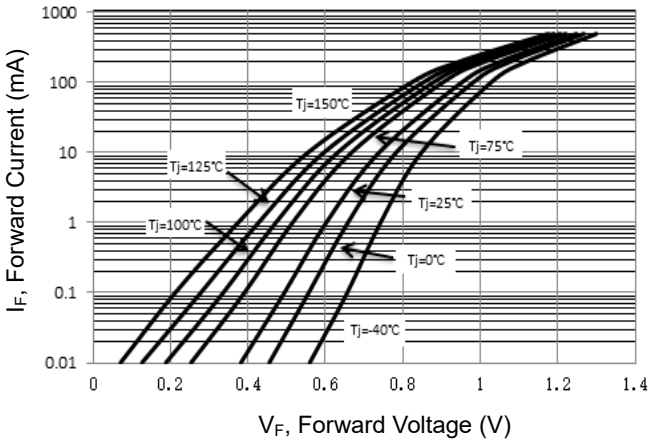
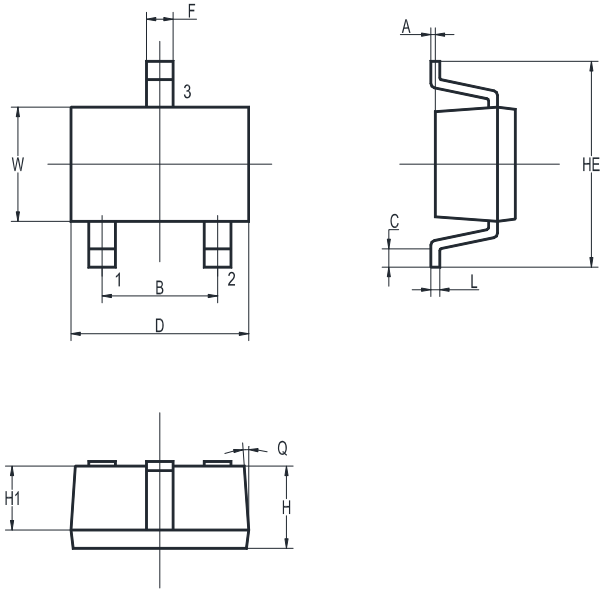


Fig 4. Forward Characteristics

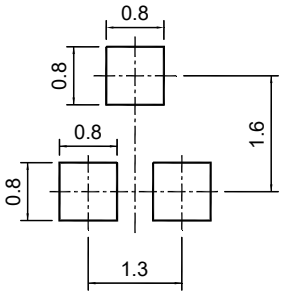


Package Outline Dimensions (Units: mm) SOT-323



UNIT	A	B	C	D	H	H1	HE	F	L	W	Q
mm	0.1 MAX.	1.4 1.2	0.2 MIN.	2.1 1.9	1.0 0.8	0.7 TYP.	2.4 2.0	0.35 0.25	0.15 0.05	1.35 1.15	5° MAX.

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-323	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

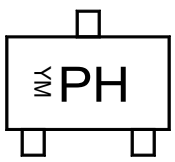
" PH " = Part No.

" YM " = Date Code Marking

" Y " = Year

" M " = Month

Font type: Arial



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