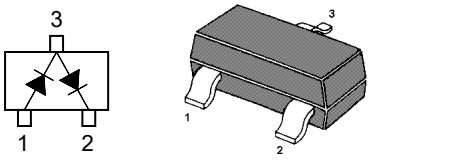
AMMBD7000

Silicon Epitaxial Planar Switching Diode

Features

- AEC-Q101 Qualified
- Fast switching speed
- High Conductance
- Halogen and Antimony Free(HAF), RoHS compliant



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

Applications

- For general purpose switching

Absolute Maximum Ratings (T_a = 25℃)

Parameter		Symbol	Value	Unit
Repetitive Peak Reverse Voltage		V_{RRM}	100	V
Reverse Voltage		V_R	100	V
Forward Current		I_F	200	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
Operating Junction Temperature Range		T_j	- 55 to + 150	℃
Storage Temperature Range		T_{stg}	- 55 to + 150	℃

Thermal Characteristics

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

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

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Characteristics at T_a = 25℃

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 100 µA	$V_{(BR)R}$	100	-	V
Forward Voltage at I_F = 1 mA at I_F = 10 mA at I_F = 100 mA at I_F = 150 mA	V_F	 0.55 0.67 0.75 -	 0.7 0.82 1.1 1.25	V
Reverse Current at V_R = 50 V at V_R = 100 V at V_R = 50 V, T_j = 125°C	I_R	 - - -	 1 3 100	µA
Total Capacitance at V_R = 0 V, f = 1 MHz	C_T	-	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

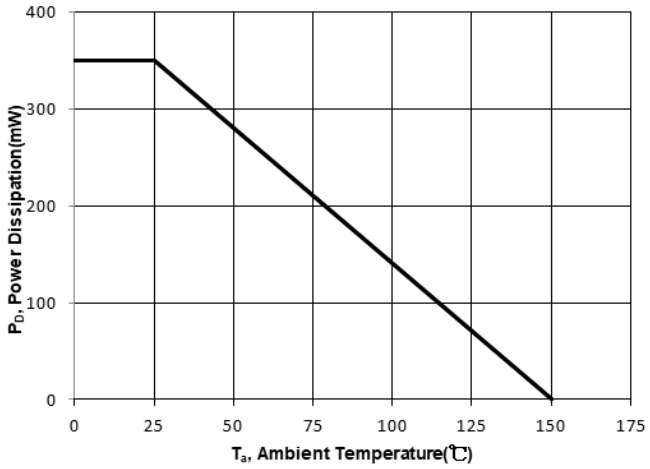


Fig 2. Total Capacitance vs. Reverse Voltage

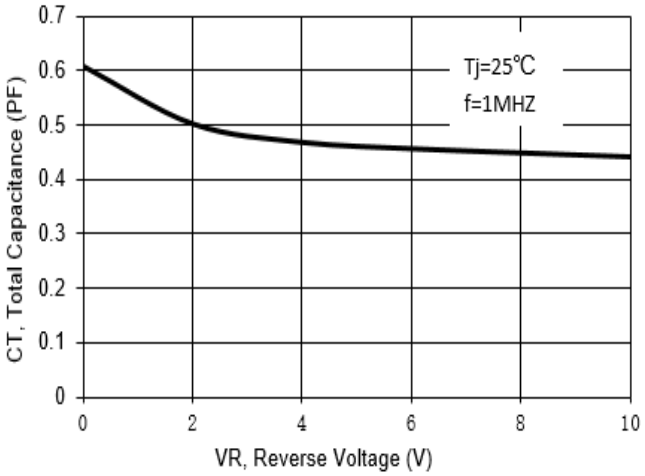


Fig 3. Reverse Current vs. Reverse Voltage

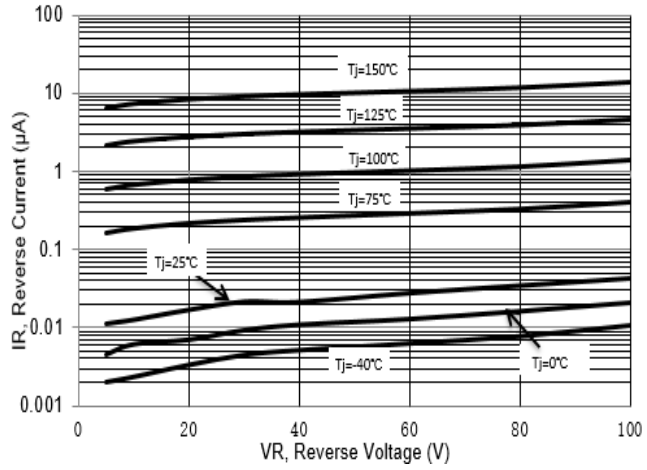
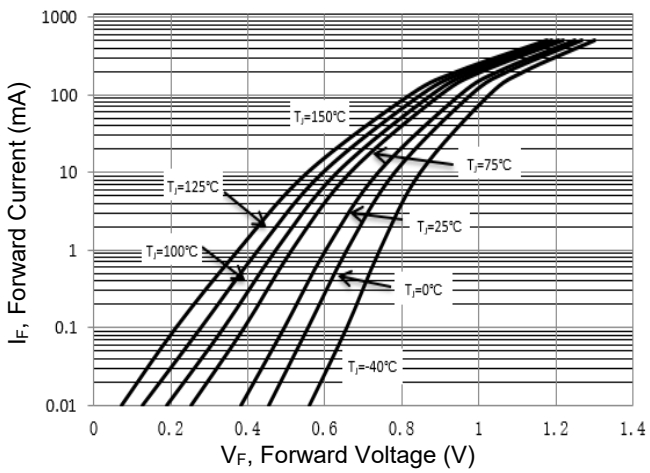
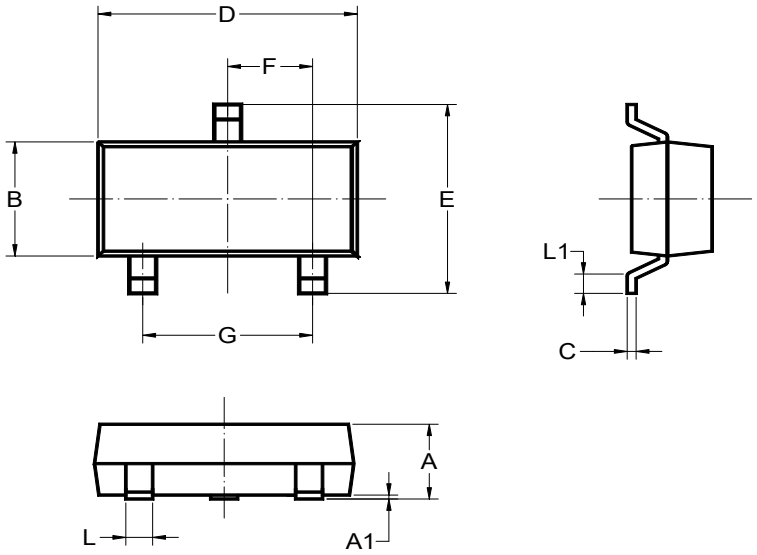


Fig 4. Forward Characteristics



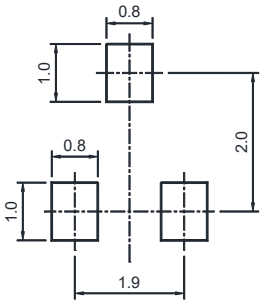
AMMBD7000

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

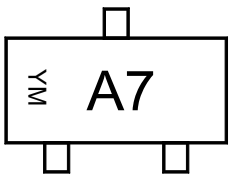


Packing information

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

" A7 " = Part No.
" YM " = Date Code Marking
" Y " = Year
" M " = Month
Font type: Arial



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