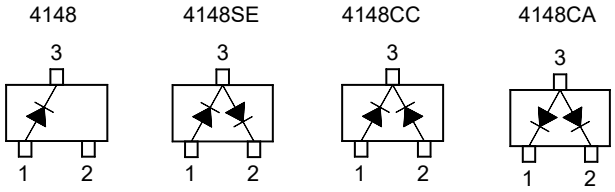
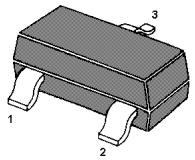
AMMBD4148 / SE / CC / CA

Silicon Epitaxial Planar Switching Diode

Features

- AEC-Q101 Qualified
- Halogen and Antimony Free(HAF), RoHS compliant





SOT-23 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

Parameter		Symbol	Value	Unit
Maximum Repetitive Reverse Voltage		V_{RRM}	100	V
Reverse Voltage		V_R	75	V
Average Rectified Forward Current		$I_{F(AV)}$	200	mA
DC Forward Current		I_{FM}	600	mA
Recurrent Peak Forward Current		I_{FRM}	700	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 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, 2oz copper, with minimum recommended pad layout.

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 100 µA at I_R = 5 µA	$V_{(BR)R}$	 100 75	 - -	 V
Forward Voltage at I_F = 10 mA	V_F	-	1	V
Reverse Current at V_R = 20 V at V_R = 75 V at V_R = 20 V, T_j = 150 °C	I_R	 - - -	 25 5 50	 nA µA µA
Total Capacitance at V_R = 0 V, f = 1 MHz	C_T	-	4	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

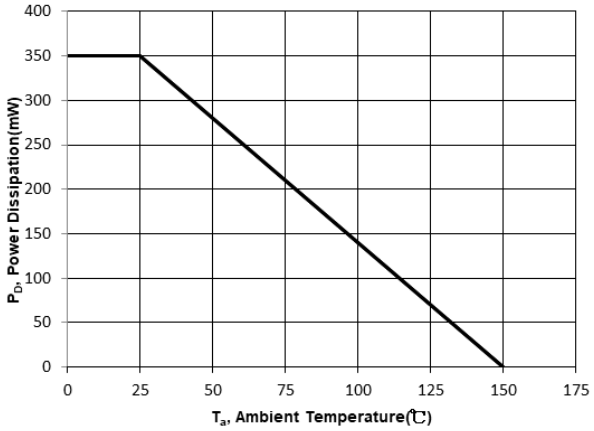


Fig 2. Capacitance Characteristics

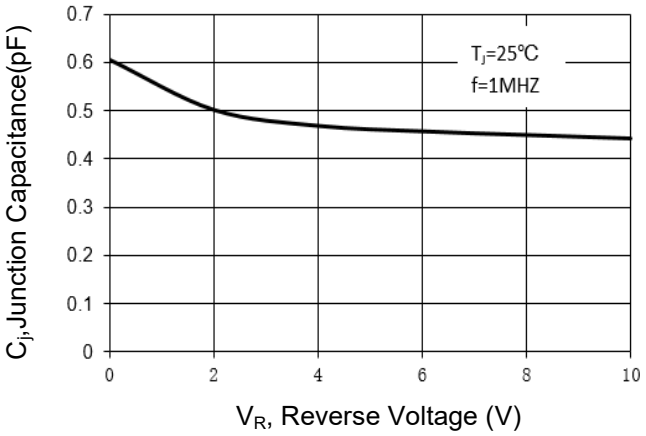


Fig 3. Reverse Characteristics

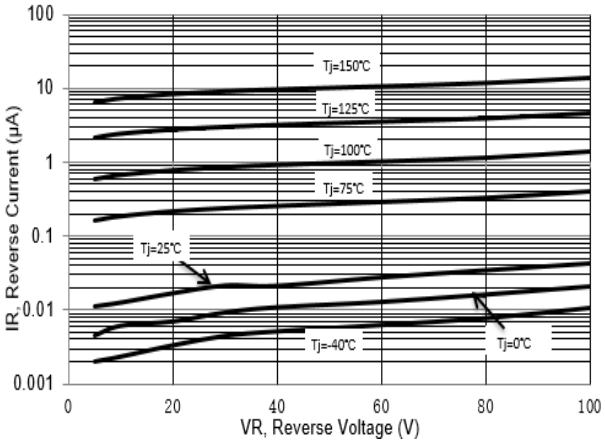
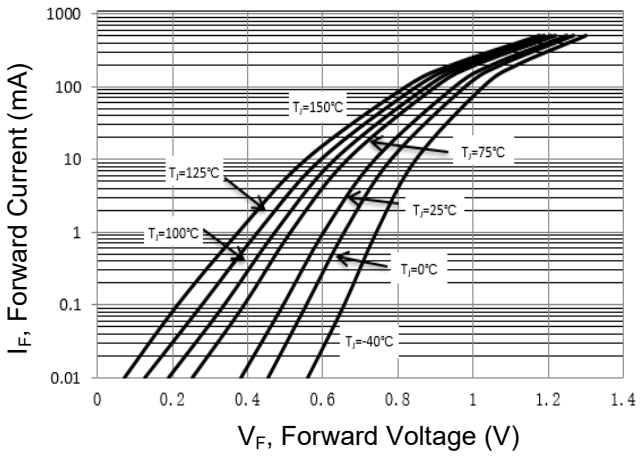
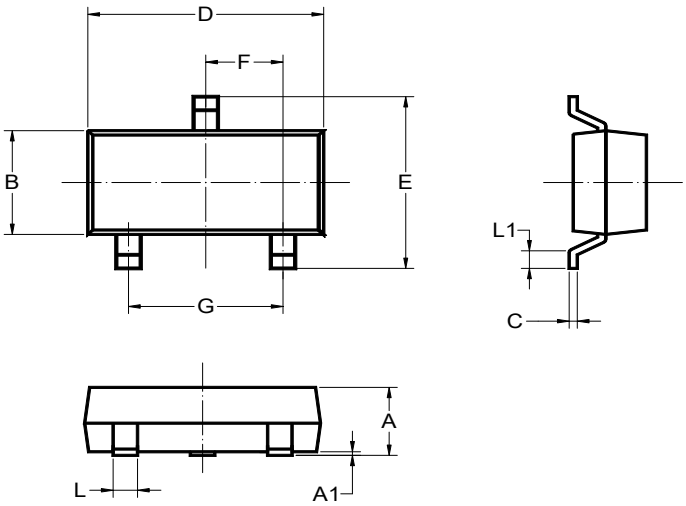


Fig 4. Forward Characteristics

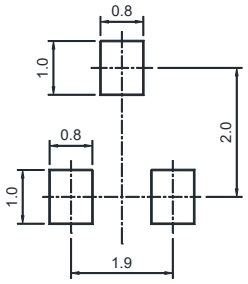


Package Outline (Dimensions in mm) SOT-23



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

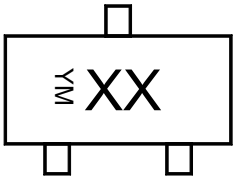


Packing information

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

" XX " = Part No.
AMMBD4148/SE/CC/CA: 5D/A7/A4/A1
" YM " = Date Code Marking
" Y " = Year
" M " = Month
Font type: Arial



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