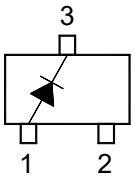
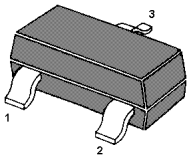
Silicon Epitaxial Planar Diodes

High Voltage Switching Diodes





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

Features

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

Absolute Maximum Ratings (T_a = 25℃)

Parameter		Symbol	Value	Unit
Reverse Voltage	ABAS19X ABAS20X ABAS21X	V_R	120 200 250	V
Continuous Forward Current		$I_{F(AV)}$	200	mA
Repetitive Peak Forward Current		I_{FRM}	625	mA
Non-repetitive Peak Forward Surge Current	at t = 1 s at t = 1 μs	I_{FSM}	0.5 2.5	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 PCB with minimum recommended pad layout.

Dated: 29/05/2026 Rev: 02

Characteristics at T_a = 25℃

Parameter		Symbol	Min.	Max.	Unit
Forward Voltage					
at I_F = 100 mA		V_F	-	1	V
at I_F = 200 mA			-	1.25	V
Reverse Breakdown Voltage					
at I_R = 100 µA	ABAS19X	$V_{(BR)}$	120	-	V
at I_R = 100 µA	ABAS20X		200	-	V
at I_R = 100 µA	ABAS21X		250	-	V
Reverse Current					
at V_R = 100 V	ABAS19X	I_R	-	0.1	µA
at V_R = 150 V	ABAS20X		-	0.1	µA
at V_R = 200 V	ABAS21X		-	0.1	µA
at V_R = 100 V, T_j = 150 °C	ABAS19X		-	100	µA
at V_R = 150 V, T_j = 150 °C	ABAS20X		-	100	µA
at V_R = 200 V, T_j = 150 °C	ABAS21X		-	100	µA
Total Capacitance					
at V_R = 0, f = 1 MHz		C_{tot}	-	5	pF
Reverse Recovery Time					
at I_F = I_R = 30 mA, I_{rr} = 0.1 X I_R, R_L = 100 Ω		t_{rr}	-	50	ns

Electrical Characteristic Curve

Fig 1. Power Derating Curve

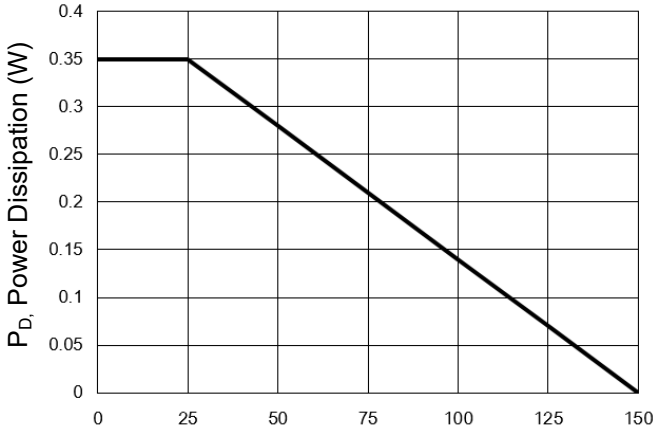


Fig 2. Forward Characteristic Curve

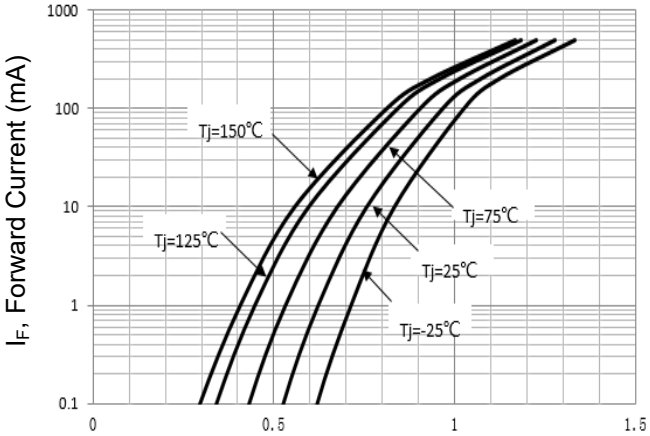


Fig 3. Total Capacitance Curve

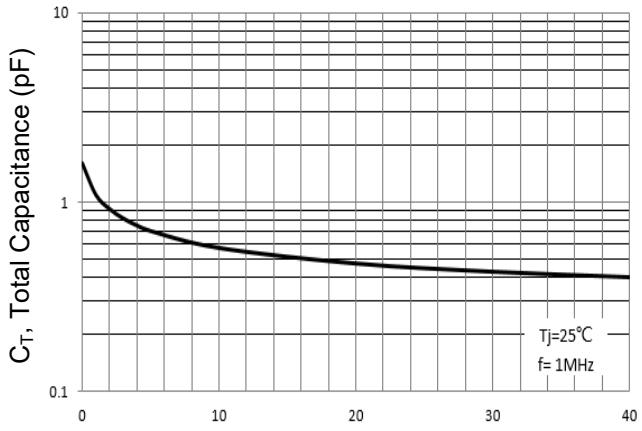
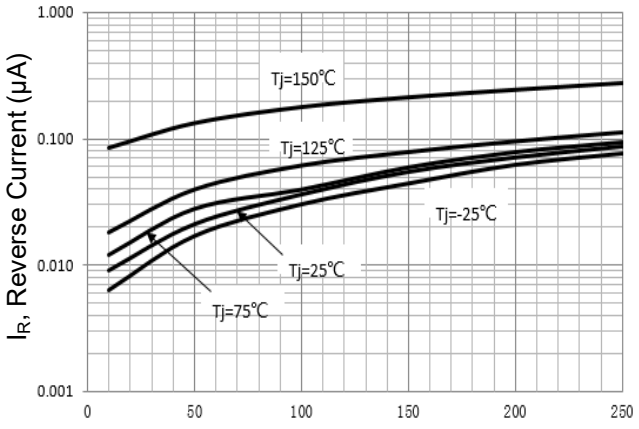
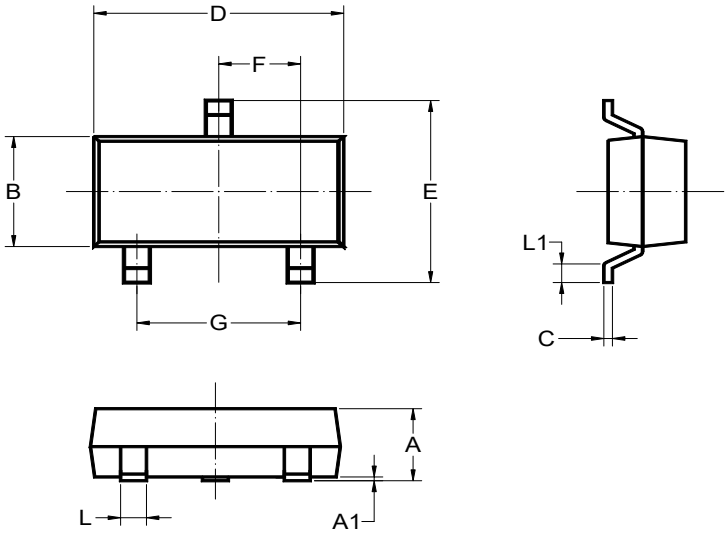


Fig 4. Reverse Characteristic Curve

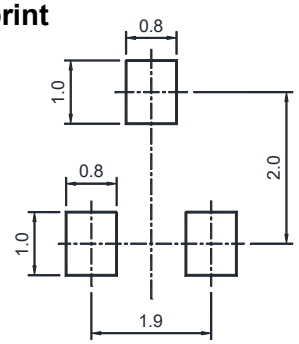


Package Outline (Dimensions in mm) SOT-23



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

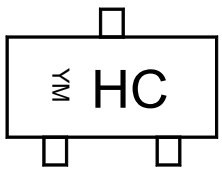


Packing information

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

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



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