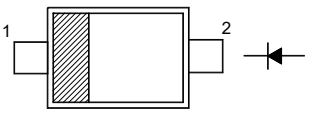
Silicon Epitaxial Planar Low Leakage Switching Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-523 and symbol

Feature

- AEC-Q101 Qualified
- Very low leakage current
- Medium speed switching times
- Halogen and Antimony Free(HAF), RoHS compliant

Applications

- For low leakage current applications

Absolute Maximum Ratings (T_a = 25℃)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	85	V
Continuous Reverse Voltage	V_R	85	V
Continuous Forward Current	I_F	200	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current at t = 1 μs at t = 1 ms at t = 1 s	I_{FSM}	4 1 0.5	A
Power Dissipation [1)]	P_D	250	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)]	$R_{\theta JA}$	500	℃/W

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

Characteristics (T_a = 25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at I_R = 100 μA	$V_{(BR)R}$	85	-	-	V
Forward Voltage at I_F = 1 mA at I_F = 10 mA at I_F = 50 mA at I_F = 150 mA	V_F	 - - - -	 - - - -	 0.9 1 1.1 1.25	V
Reverse Current at V_R = 75 V at V_R = 75 V, T_j = 150℃	 I_R I_R	 - -	 - -	 5 80	nA
Total Capacitance at V_R = 0, f = 1 MHz	C_T	-	2	-	pF
Reverse Recovery Time at I_F = I_R = 10 mA, I_{rr} = 0.1 X I_R, R_L = 100 Ω	t_{rr}	-	-	3	μs

Electrical Characteristics Curves

Fig 1. Power Derating Curve

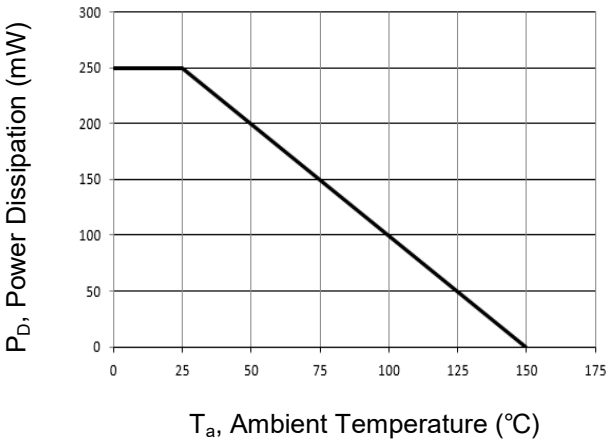


Fig 2. Capacitance characteristics Curve

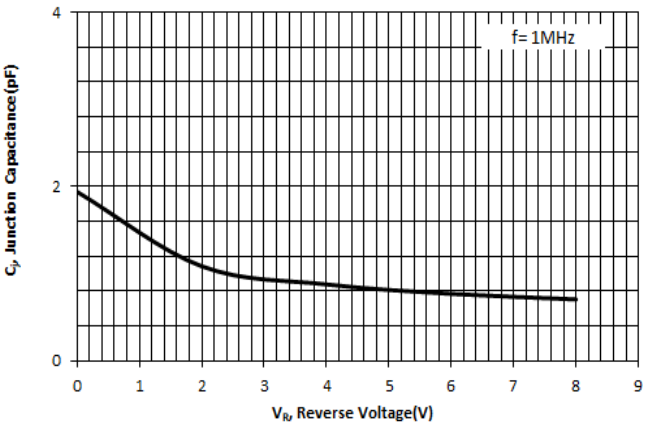


Fig 3. Reverse Characteristics Curve

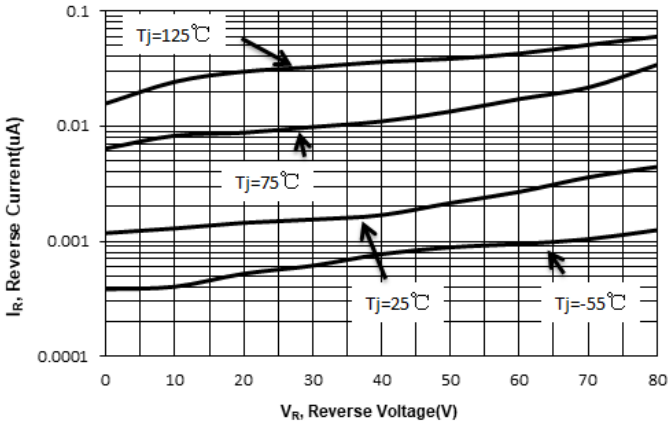
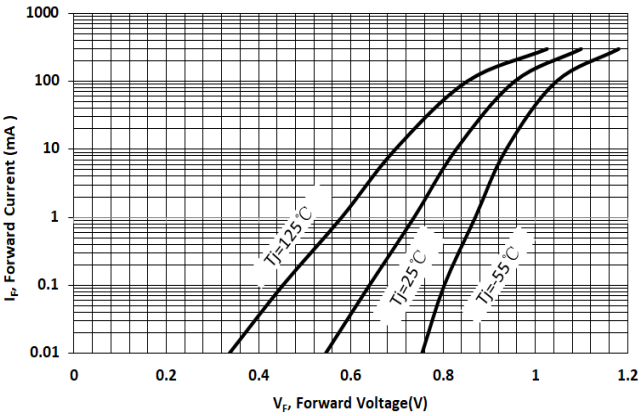
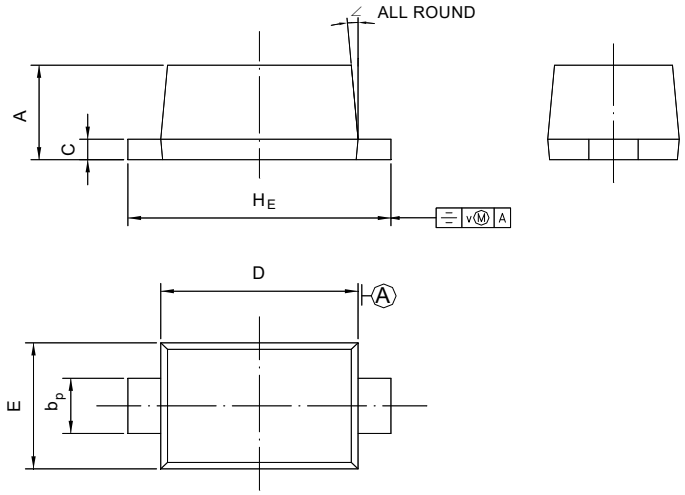


Fig 4. Forward Characteristics Curve



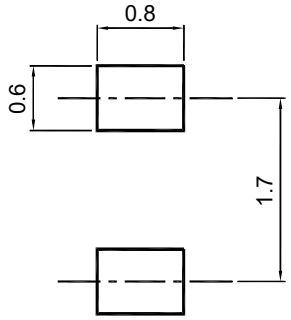
PACKAGE OUTLINE

Plastic surface mounted package **SOD-523**



UNIT	A	b_p	C	D	E	H_E	V	∠
mm	0.70 0.60	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°

Recommended Soldering Footprint

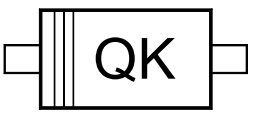


Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-523	8	4 ± 0.1	0.157 ± 0.004	178	7	4,000

Marking information

" QK " = Part No.
" III " = Cathode line
Font type: Arial



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