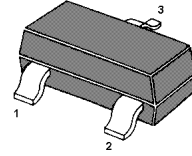
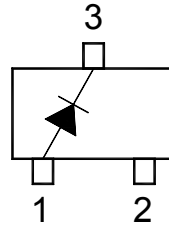


1SS294

Silicon Epitaxial Planar Schottky Barrier Diode

Features

- Small surface mounting type
- Low reverse current
- Low forward voltage



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

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Maximum Peak Reverse Voltage	V_{RM}	45	V
Reverse Voltage	V_R	40	V
Average Forward Rectified Current	$I_{F(AV)}$	100	mA
Maximum Peak Forward Current	I_{FM}	300	mA
Power Dissipation	P_D	150	mW
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 125	$^\circ\text{C}$

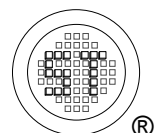
Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambient ¹⁾	$R_{\theta JA}$	666	$^\circ\text{C/W}$

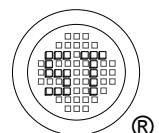
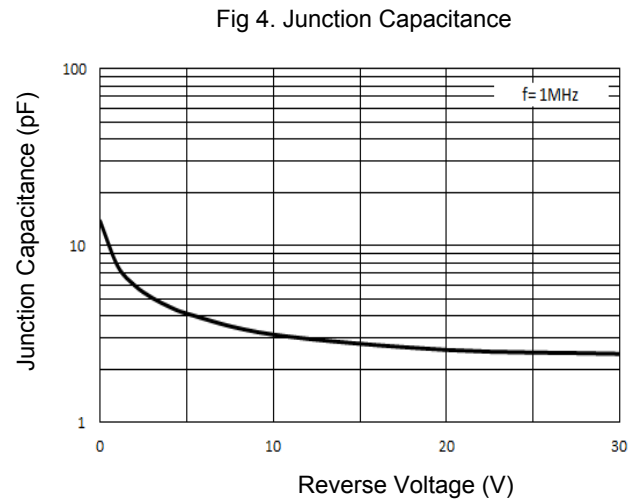
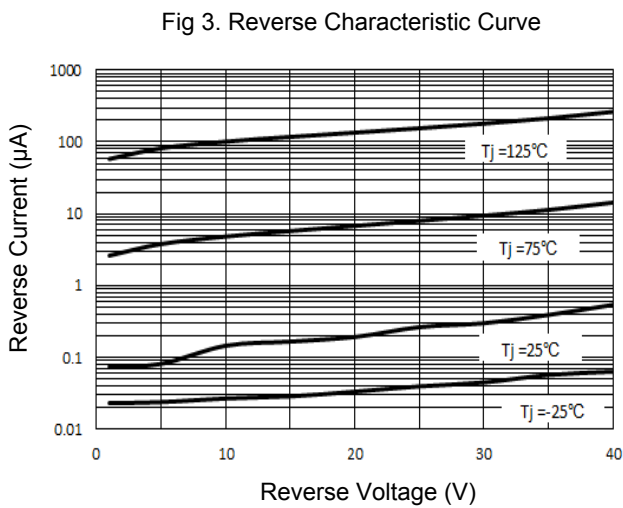
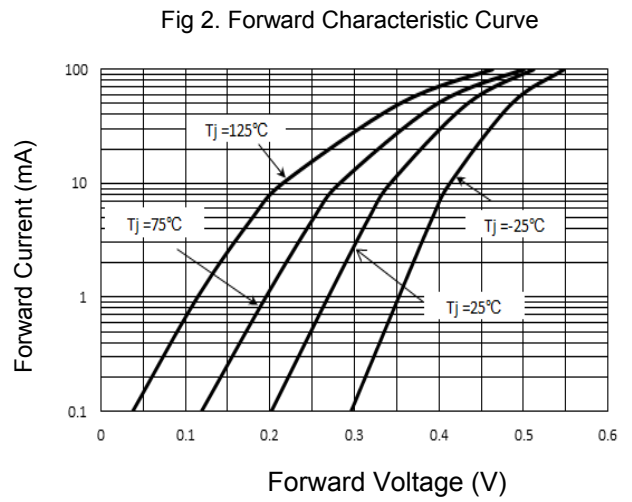
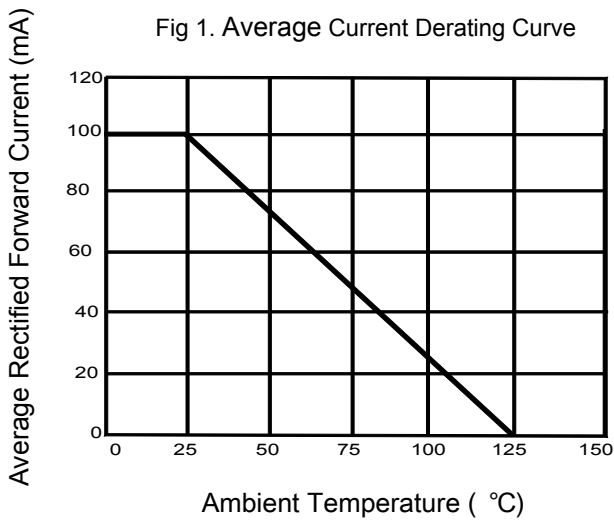
¹⁾ Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$	$V_{(BR)R}$	40	-	V
Forward Voltage at $I_F = 100 \text{mA}$	V_F	-	0.6	V
Reverse Current at $V_R = 40 \text{V}$	I_R	-	5	μA
Total Capacitance at $V_R = 0 \text{V}$, $f = 1 \text{MHz}$	C_T	-	25	pF



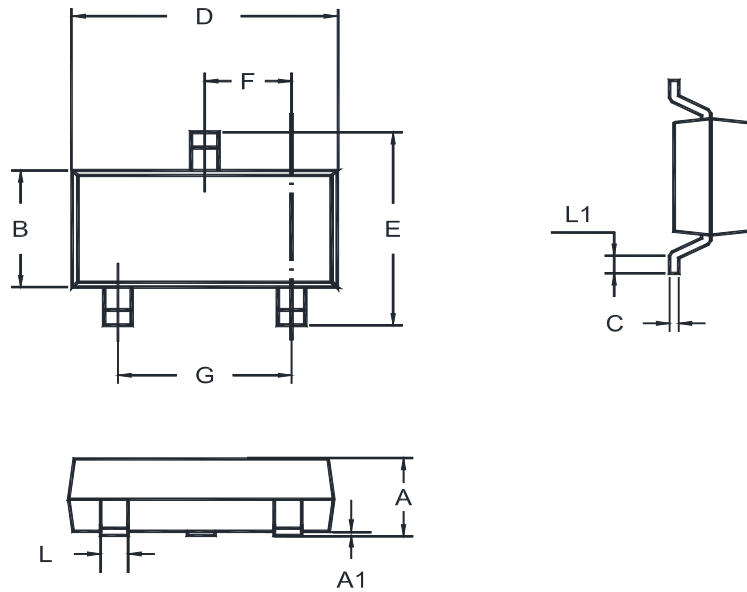
Electrical Characteristic Curves



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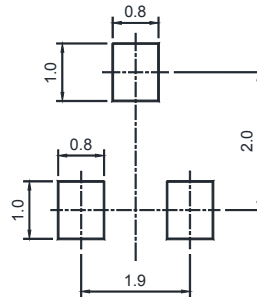
Package Outline (Dimensions in mm)

SOT-23



Unit	A	A1	B	C	D	E	F	G	L	L1
mm	1.20	0.100	1.40	0.19	3.04	2.6	1.02	2.04	0.51	0.2
	0.89	0.013	1.20	0.08	2.80	2.2	0.89	1.78	0.37	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

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

