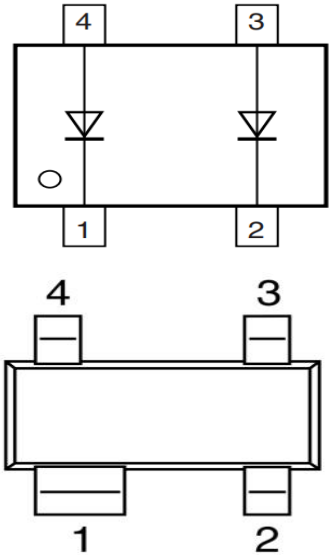
迈拓电子
MAITUO ELECTRONIC

1SS319 SCHOTTKY BARRIER DIODE



SOT-143

Features

• Low forward voltage

Applications

• Ultra high-speed switching
• Voltage clamping
• Protection circuits

Marking Code: "**A4**"

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	40	V
Forward Current	I_F	100	mA
Repetitive Peak Forward Current	I_{FRM}	300	mA
Peak Forward Surge Current (t_p = 10 ms)	I_{FSM}	600	mA
Power Dissipation	P_D	150	mW
Thermal Resistance from Junction Ambient	R_{thJA}	500	K/W
Junction Temperature	T_J	125	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Max.	Unit
Forward Voltage at I_F = 1 mA at I_F = 10 mA at I_F = 30 mA at I_F = 100 mA	V_F	 320 400 500 600	mV
Reverse Current at V_R = 40 V	I_R	5	µA
Total Capacitance at V_R = 1 V, f = 1 MHz	C_T	25	pF
Reverse Recovery Time at I_F = 10 mA, V_R = 6 V, I_R = 10 mA, R_L = 100 Ω	t_{rr}	6	ns

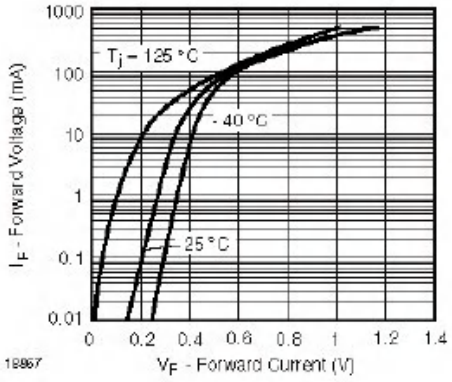


Figure 1. Typical Forward Voltage Forward Current at Various Temperatures

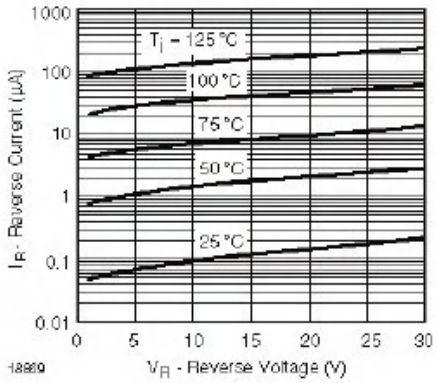


Figure 3. Typical Variation of Reverse Current at Various Temperatures

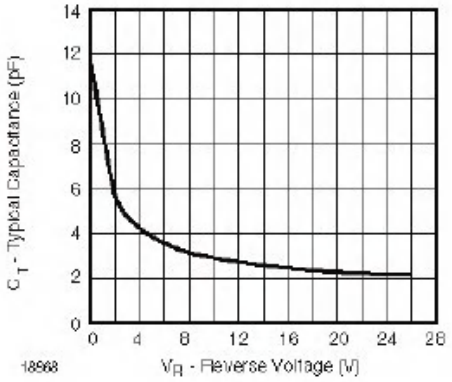


Figure 2. Typical Capacitance °C vs. Reverse Applied Voltage V_R

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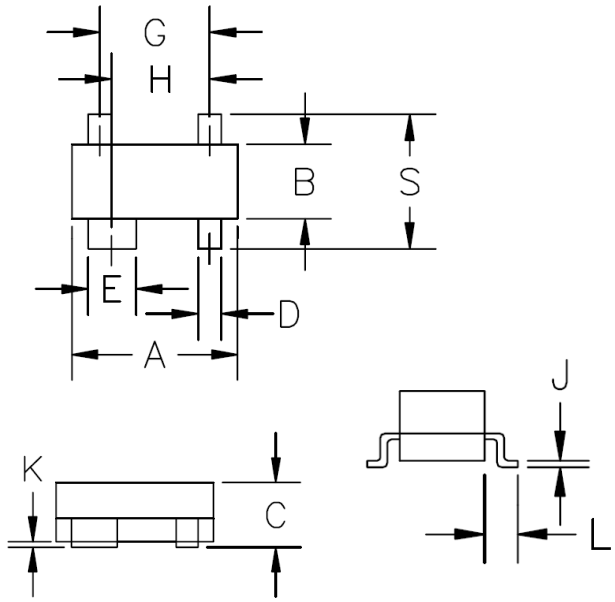
Package Outline

Plastic surface mounted package SOT-143



DIMENSIONS					
DIMᴺ	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	–
B	.047	.055	1.20	1.40	–
C	.031	.047	.80	1.20	–
D	.014	.018	.37	.510	–
E	.030	.035	.76	.940	–
G	.076 BSC		1.92 BSC		–
H	.068 BSC		1.72 BSC		–
J	.003	.005	.085	.180	–
K	.002	.005	.013	0.10	–
L	.010	.022	–	.55	REF
S	.082	.104	2.10	2.64	–