



迈拓电子  
MAITUO ELECTRONIC

## 1SS319 SCHOTTKY BARRIER DIODE

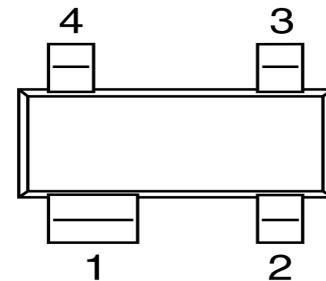
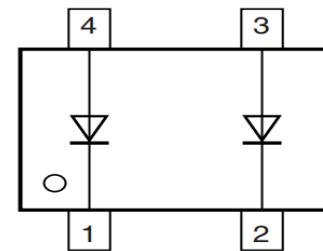
### Features

- Low forward voltage

### Applications

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

Marking Code: "A4"



SOT-143

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

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 ( $t_p = 10 \text{ ms}$ )	$I_{FSM}$	600	mA
Power Dissipation	$P_D$	150	mW
Thermal Resistance from Junction Ambient	$R_{thJA}$	500	K/W
Junction Temperature	$T_J$	125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 150	$^\circ\text{C}$

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

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



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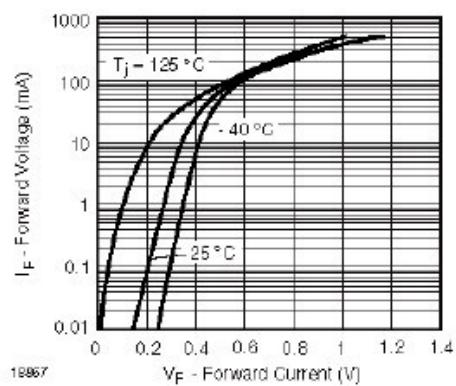


Figure 1. Typical Forward Voltage Forward Current at Various Temperatures

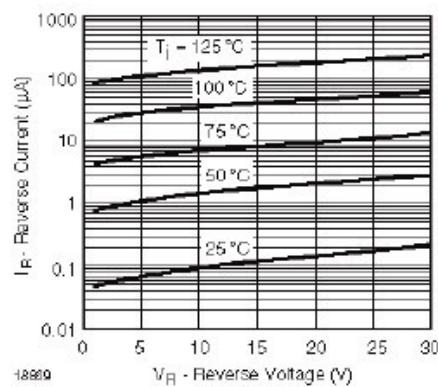


Figure 3. Typical Variation of Reverse Current at Various Temperatures

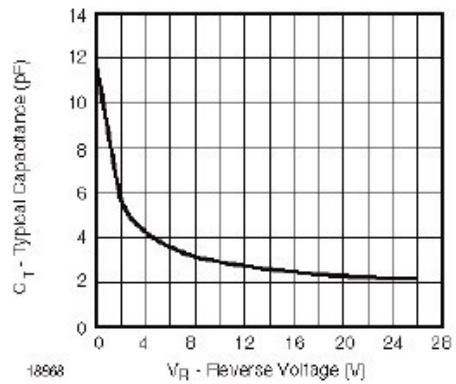


Figure 2. Typical Capacitance  $\text{pF}$  vs. Reverse Applied Voltage  $V_R$



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## Package Outline

Plastic surface mounted package

SOT-143

DIM <sup>N</sup>	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	.010	—
L	.010	.022	—	.55	REF
S	.082	.104	2.10	2.64	—