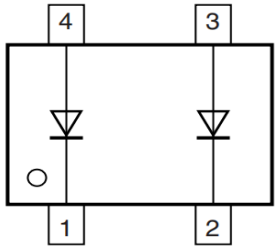
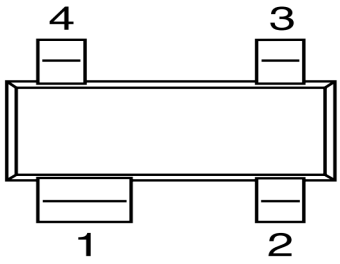
迈拓电子
MAITUO ELECTRONIC

BAS28 **Silicon Epitaxial Planar Switching Diode**



Features and benefits

* High switching speed: trr 4 ns
* Reverse voltage: VR 75 V
* Repetitive peak reverse voltage: VRRM 85 V
* Repetitive peak forward current: IFRM 500 mA
* mall SMD package



Applications

* High-speed switching in e.g. surface-mounted circuits

Marking : JT

SOT143

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	80	V
Average Rectified Forward Current	$I_{F(AV)}$	215	mA
Forward Continuous Current	I_{FM}	500	mA
Non-Repetitive Peak Forward Surge Current (at t = 1 μs)	I_{FSM}	4	A
Power Dissipation	P_d	400	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at I_F = 5 mA at I_F = 10 mA at I_F = 100 mA at I_F = 150 mA	V_F	0.62 - - -	0.72 0.855 1 1.25	V
Reverse Leakage Current at V_R = 80 V at V_R = 20 V at V_R = 75 V, T_J = 150 °C at V_R = 25 V, T_J = 150 °C	I_R	- - - -	1000 30 50 30	nA nA µA µA
Reverse Breakdown Voltage at I_R = 100 µA	$V_{(BR)R}$	80	-	V
Total Capacitance at V_R = 0.5 V, f = 1 MHz	C_{tot}	-	4	pF
Reverse Recovery Time at I_F = I_R = 10 mA, I_{rr} = 0.1 X I_R , R_L = 100 Ω	t_{rr}	-	4	ns

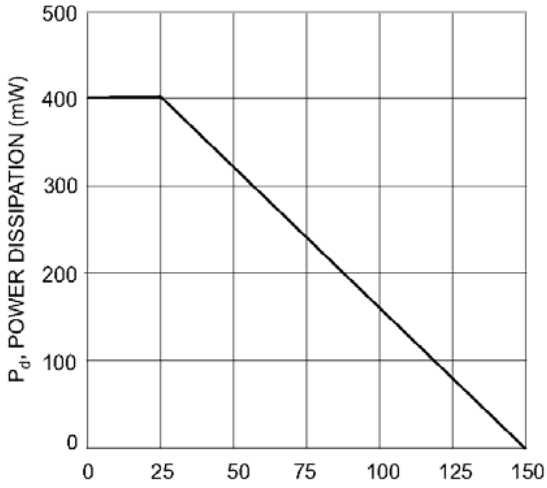


Fig. 1 Power Derating Curve

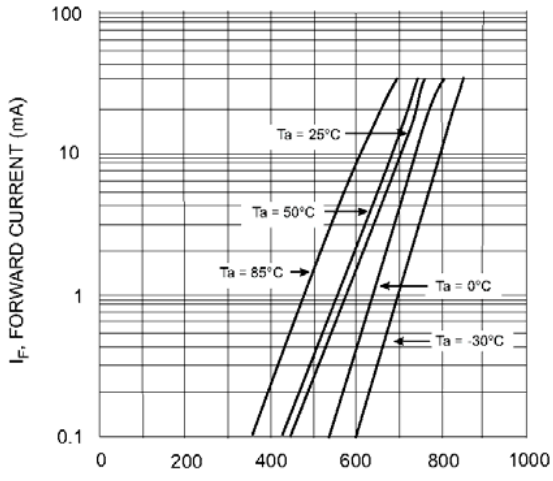


Fig. 2 Typical Forward Characteristics

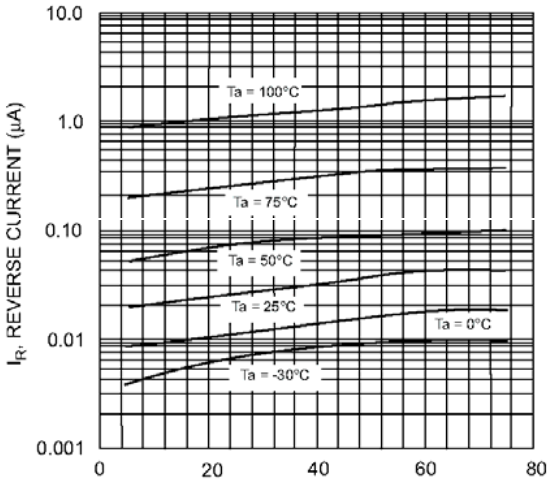


Fig. 3 Typical Reverse Characteristics

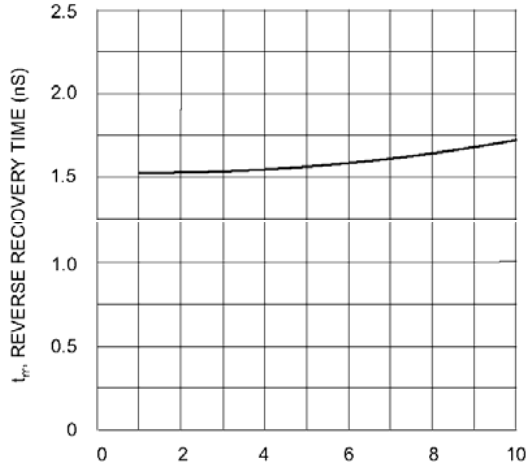


Fig. 4 Reverse Recovery Time vs. Forward Current

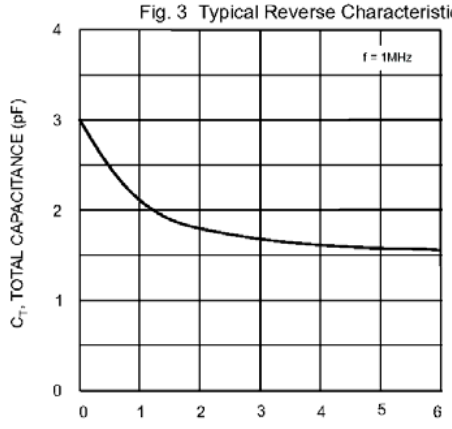
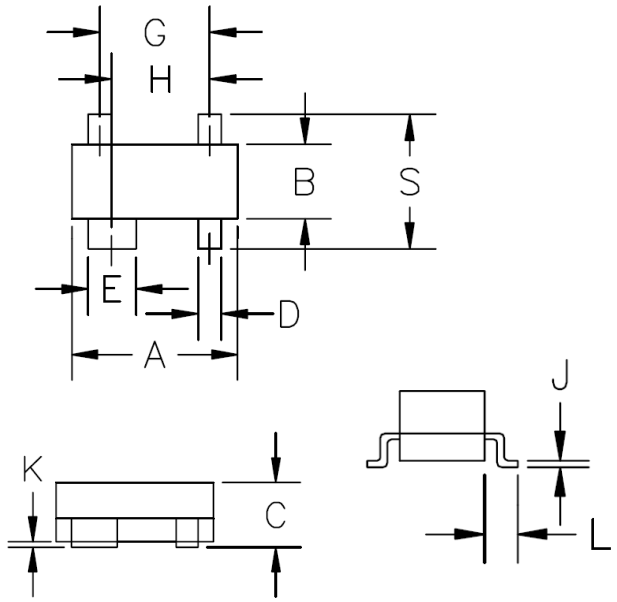


Fig. 5 Total Capacitance vs. Reverse Voltage

迈拓电子
MAITUO ELECTRONIC

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	–