



DONGGUAN NANJING ELECTRONICS LTD.,
SOT- 143 Plastic-Encapsulate Diodes

BAS28 Silicon Epitaxial Planar Switching Diode

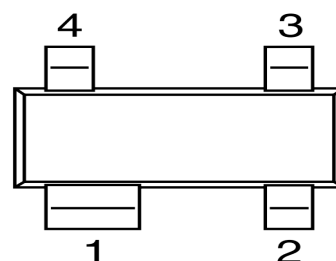
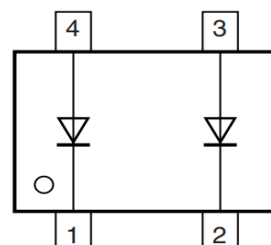
Features and benefits

- * High switching speed: t_{rr} 4 ns
- * Reverse voltage: V_R 80 V
- * Repetitive peak reverse voltage: V_{RRM} 100 V
- * Repetitive peak forward current: I_{FM} 500 mA
- * small SMD package

Applications

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

Marking : JT



SOT143

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

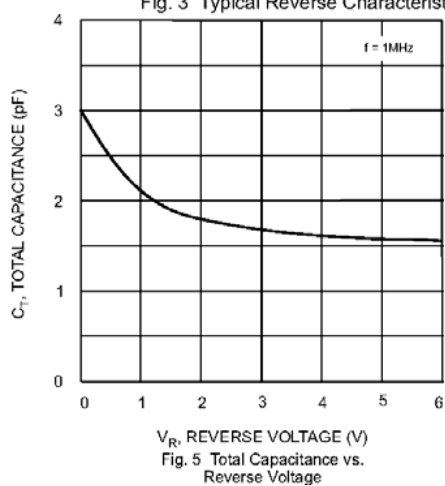
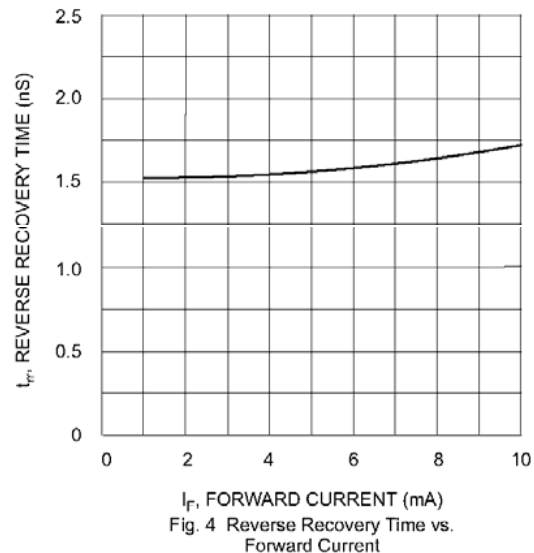
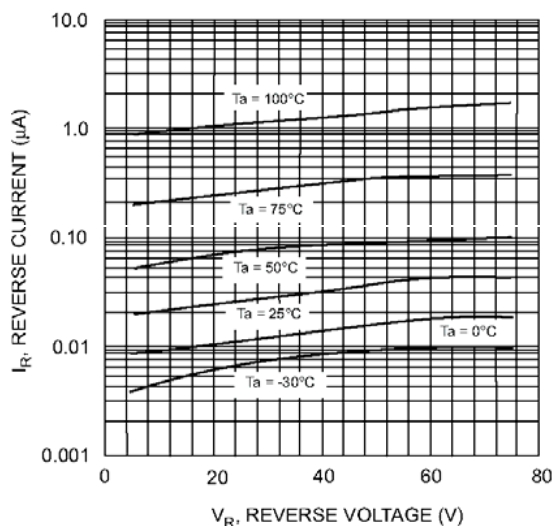
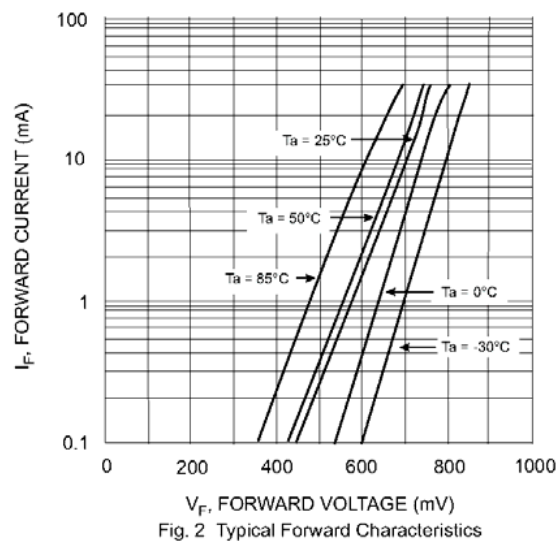
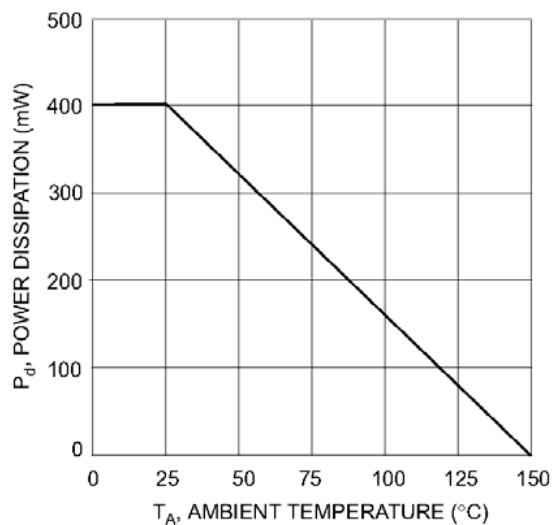
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	80	V
Average Rectified Forward Current	$I_{F(AV)}$	215	mA
Forward Continuous Current	I_{FM}	500	mA
Non-Repetitive Peak Forward Surge Current (at $t = 1\ \mu\text{s}$)	I_{FSM}	4	A
Power Dissipation	P_d	400	mW
Junction Temperature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

ELECTRICAL CHARACTERISTICS

Electrical Ratings @Ta=25°C

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

Typical Characteristics



SOT- 143 Package Outline Dimensions

Plastic surface mounted package

