High-speed Double Diode
BAS28

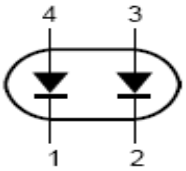
Features

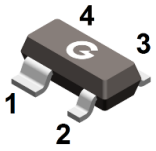
- Fast switching speed
- High conductance

HF

Mechanical Data

- Case: SOT-143
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208





SOT-143

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BAS28	SOT-143	3000 pcs / Tape & Reel	JT

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Peak Reverse Voltage	V_{RRM}	85	V
DC Blocking Voltage	V_R	75	V
Forward Continuous Current	I_F	215	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current, t_p = 1μs	I_{FSM}	4	A
Non-Repetitive Peak Forward Surge Current, t_p = 1ms		1	A
Non-Repetitive Peak Forward Surge Current, t_p = 1s		0.5	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation (T_A = 25°C)	P_D	250	mW
Thermal Resistance Junction-to-Air	$R_{\theta JA}$	500	°C/W
Thermal Resistance Junction-to-Air *1	$R_{\theta JA}$	340	°C/W
Thermal Resistance Junction-to-Case *1	$R_{\theta JC}$	280	°C/W
Thermal Resistance Junction-to-Lead *1	$R_{\theta JL}$	290	°C/W
Operating Junction Temperature Range	T_J	-65 ~ +150	°C
Storage Temperature Range	T_{STG}	-65 ~ +150	°C

Note 1: The data tested by surface mounted on a 1 inch^2 FR-4 board with 2OZ copper

Electrical Characteristics (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	I_R = 100μA	75	-	-	V
Forward Voltage	V_F	I_F = 1mA	-	-	0.715	V
		I_F = 10mA	-	-	0.855	V
		I_F = 50mA	-	-	1.000	V
		I_F = 100mA	-	-	1.250	V
Reverse Current	I_R	V_R = 25V	-	-	0.03	μA
		V_R = 75V	-	-	1	μA
		V_R = 25V, T_J = 125°C	-	-	30	μA
		V_R = 75V, T_J = 150°C	-	-	50	μA
Diode capacitance	C_J	V_R = 0V, f = 1MHz	-	-	1.5	pF
Reverse Recovery Time	t_{rr}	I_F = I_R = 10mA I_{rr} = 0.1×I_R, R_L = 100Ω	-	-	4	ns
Forward Recovery Voltage	V_{fr}	I_F = 10mA, t_r = 20ns	-	-	1.75	V

Ratings and Characteristics Curves (@ T_A = 25°C unless otherwise specified)

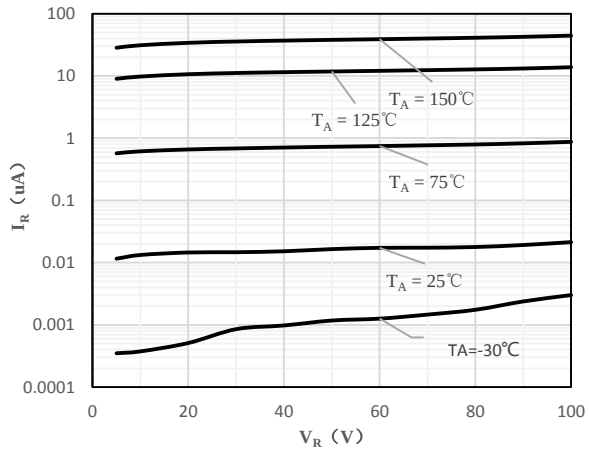


Fig 1 Typical Reverse Characteristic

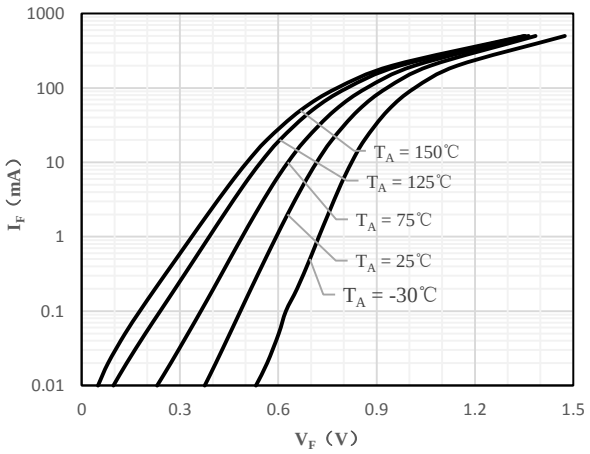


Fig 2 Typical Forward Characteristics

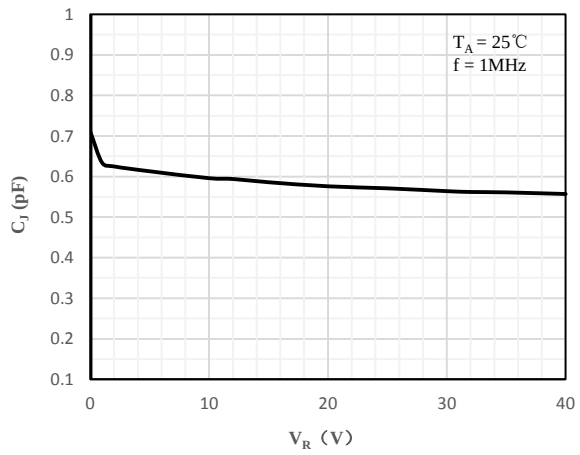


Fig 3 Capacitance vs. Reverse Voltage

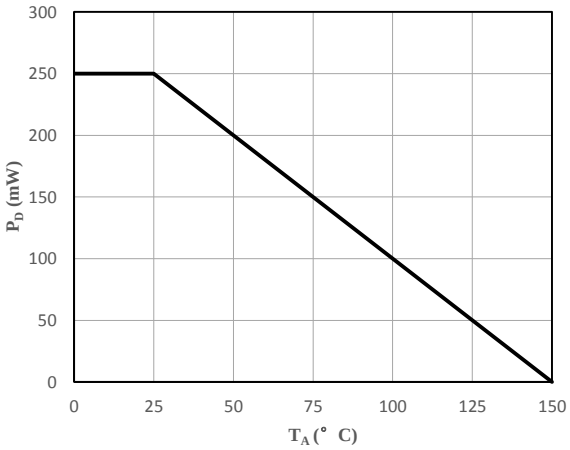
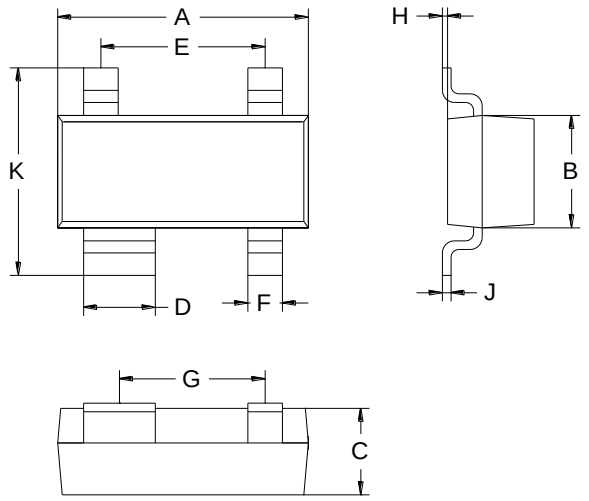


Fig 4 Power Derating Curve

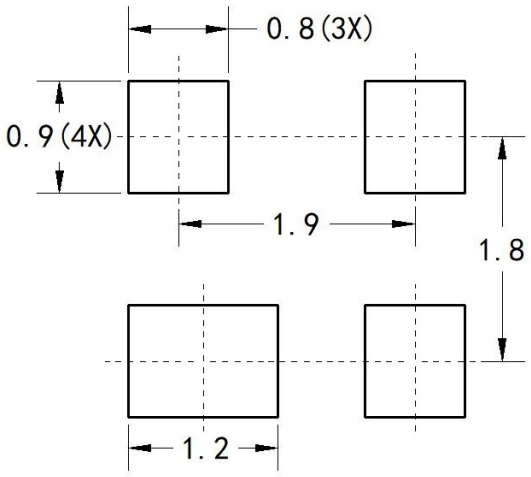
Package Outline Dimensions (Unit: mm)



SOT-143		
Dimension	**Min.**	**Max.**
A	2.70	3.10
B	1.10	1.50
C	0.90	1.10
D	0.78	0.88
E	1.80	2.00
F	0.37	0.43
G	1.59	1.79
H	0.02	0.10
J	0.05	0.15
K	2.20	2.60

Package Outline Dimensions (Unit: mm)

SOT-143



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