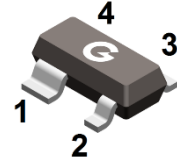
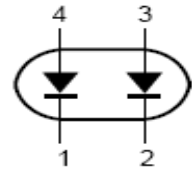


Features

- High switching speed
- Low leakage current
- High breakdown voltage
- Low capacitance
- RoHS compliant with Halogen-free

HF



SOT-143

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

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BAS70-07	SOT-143	3000 pcs / Tape & Reel	K77

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	70	V
Working Peak Reverse Voltage	V _{RWM}	70	V
DC Reverse Voltage	V _R	70	V
RMS Reverse Voltage	V _{R(RMS)}	49	V
Continuous Forward Current	I _F	70	mA
Non-Repetitive Peak Forward Surge Current (t _p = 8.3ms)	I _{FSM}	100	mA

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation (T _A = 25°C)	P _D	250	mW
Thermal Resistance Junction-to-Air	R _{θJA}	500	°C/W
Operating Junction Temperature Range	T _J	-55 ~ +150	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C

Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 10\mu\text{A}$	70	-	-	V
Forward Voltage	V_F	$I_F = 1\text{mA}$	-	-	0.41	V
		$I_F = 10\text{mA}$	-	-	0.75	V
		$I_F = 15\text{mA}$	-	-	1	V
Maximum Peak Reverse Current	I_R	$V_R = 50\text{V}$	-	-	100	nA
		$V_R = 70\text{V}$	-	-	5	μA
Capacitance Between Terminals	C_J	$V_R = 4\text{V}, f = 1\text{MHz}$	-	-	2	pF

Ratings and Characteristics Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

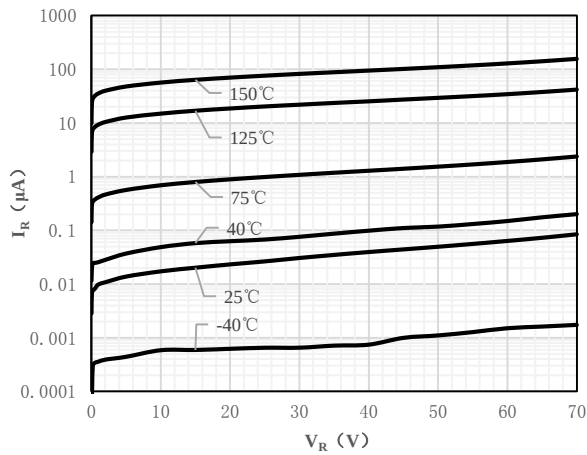


Fig 1 Typical Reverse Characteristic

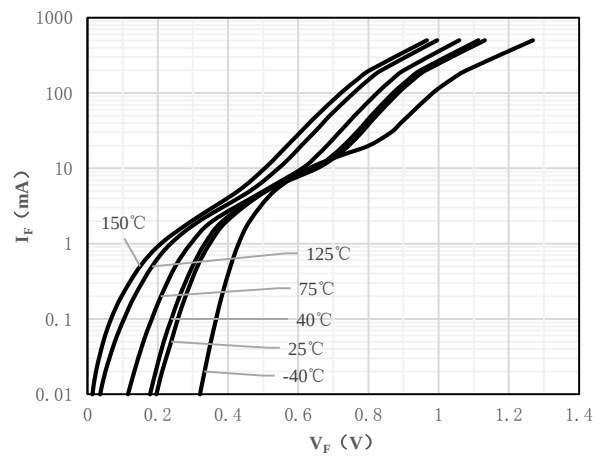


Fig 2 Typical Forward Characteristics

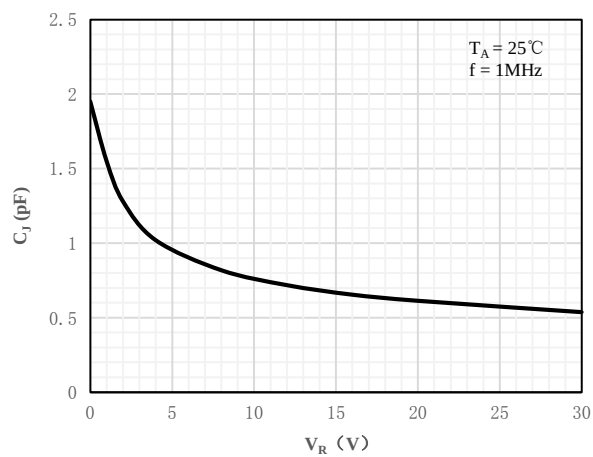


Fig 3 Capacitance Characteristics

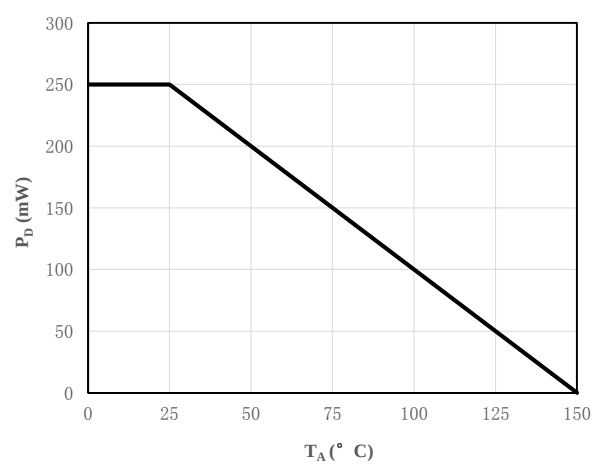
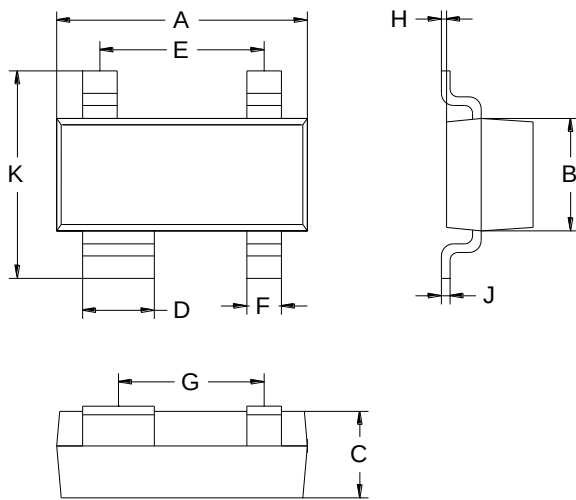


Fig 4 Power Derating Curve

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

