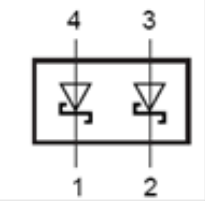
BAS40-07

Small Signal Schottky Diodes

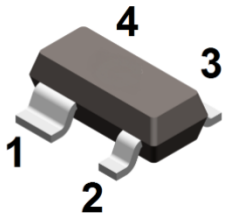
Features

- High switching speed
- High breakdown voltage
- Low leakage current
- Low capacitance



Typical Applications

- Ultra high-speed switching
- Voltage clamping



SOT-143

Mechanical Data

- Case: SOT-143
- Terminals: solderable per MIL-STD-202, Method 208.

Ordering Information

Part Number	Package	Shipping	Marking Code
BAS40-07	SOT-143	3000 pcs / Tape&Reel	47

Maximum Ratings (@T_A=25℃ unless otherwise specified)

Parameter	Symbol	Limits	Unit
Reverse Voltage	V_R	40	V
Forward Continuous Current *	I_{FM}	200	mA
Repetitive Peak Forward Current	I_{FRM}	120	mA
Non-Repetitive Peak Forward Current @8.3ms	I_{FSM}	200	mA
Power Dissipation *	P_d	250	mW
* part mounted on FR-4 board with recommended pad layout			

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Thermal Characteristics

Parameter	Symbol	Limits	Unit
Thermal Resistance, Junction to Ambient *	$R_{\theta JA}$	400	℃/W
Operating Junction Temperature Range	T_j	-55 to +125	℃
Storage Temperature Range	T_{STG}	-55 to +150	℃

Electrical Characteristics (@T_A=25℃ unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward Voltage *1	V_F	I_F=1mA			0.38	V
		I_F=10mA			0.55	V
		I_F=40mA			1	V
Reverse Leakage Current *2	I_R	V_R=30V			0.2	μA
Capacitance Between Terminals	C_T	V_R=0V,f=1MHz		2.5	5	pF

*1: pulse test,tp≤300μs
*2: pulse test,tp≤5ms

Ratings and Characteristic Curves (T_A=25℃ unless otherwise noted)

FIG 1.TYPICAL REVERSE CHARACTERISTIC

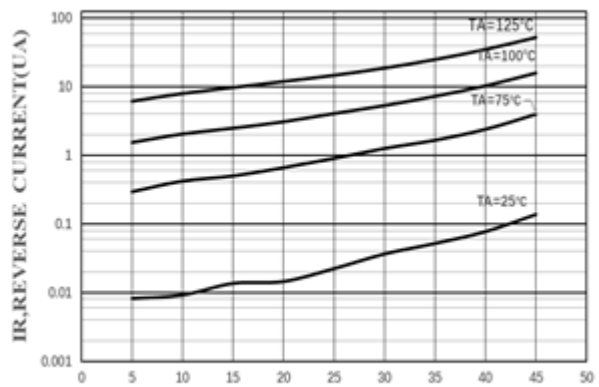


FIG 2.TYPICAL FORWARD CHARACTERISTIC

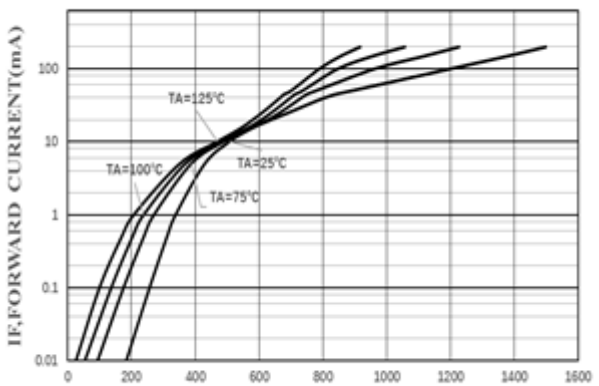


FIG 3.CAPACITANCE VS REVERSE VOLTAGE

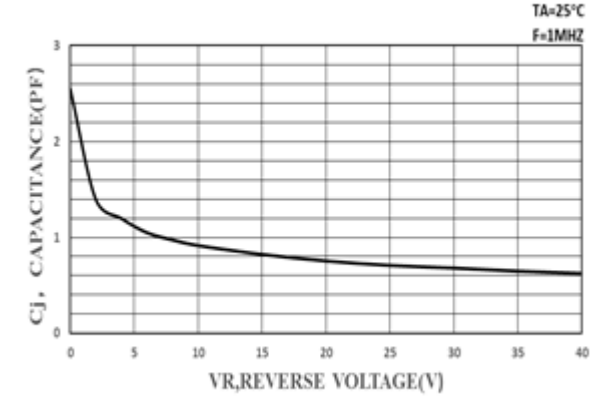
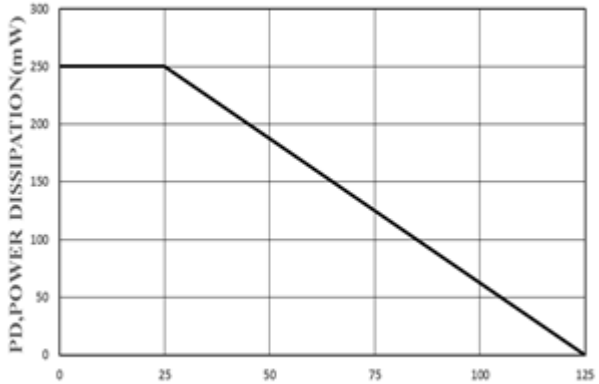


FIG 4.DERATING CURVE(Pd-TA)



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Small Signal Schottky Diodes

Package Outline Dimensions (unit: mm)

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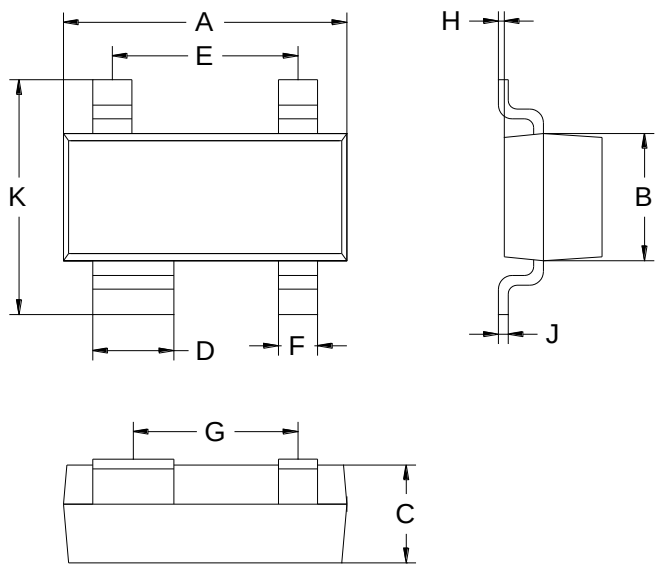

SOT-143		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	0.90	1.10
D	0.78	0.88
E	1.80	2.00
F	0.37	0.43
G	1.59	1.79
H	0.02	0.10
J	0.05	0.15
K	2.20	2.60

Mounting Pad Layout (unit: mm)

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