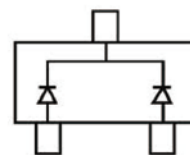


Features

- Low Forward Voltage
- Fast Switching



SOT23



Equivalent Circuit

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

Symbol	Parameter	Value	Unit
V_{RRM}	Peak Repetitive Peak Reverse Voltage	40	V
V_{RWM}	Working Peak Reverse Voltage		
V_R	DC Blocking Voltage		
I_{FM}	Forward Continuous Current	200	mA
I_o	Average Rectified Output Current	200	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current@8.3mS	0.6	A
P_d	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	500	$^{\circ}\text{C}/\text{W}$
T_J	Operating Junction Temperature Range	-40~+125	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

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

Symbol	Parameter	Test conditions	Min	Max	Unit
$V_{(BR)}$	Reverse breakdown voltage	$I_R=10\mu\text{A}$	40		V
I_R	Reverse current	$V_R=30\text{V}$		200	nA
V_F	Forward voltage	$I_F=1\text{mA}$		380	mV
		$I_F=40\text{mA}$		1000	mV
C_D	Diode capacitance	$V_R=0\text{V}$, $f=1\text{MHz}$		5	pF
t_{rr}	Reverse recovery time	$I_{rr}=1\text{mA}$, $I_R=I_F=10\text{mA}$, $R_L=100\Omega$		5	nS

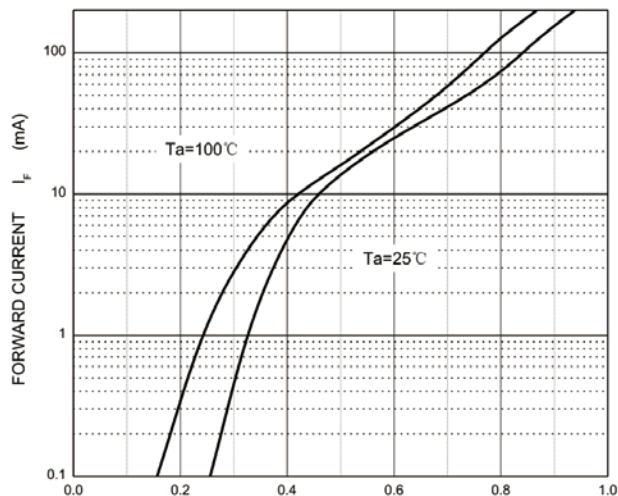
Ordering information

Product ID	Marking	Naming rule	Pack	Qty(PCS)
BAS40-05	45	BAS40-05 产品名称 product name	SOT23	3000

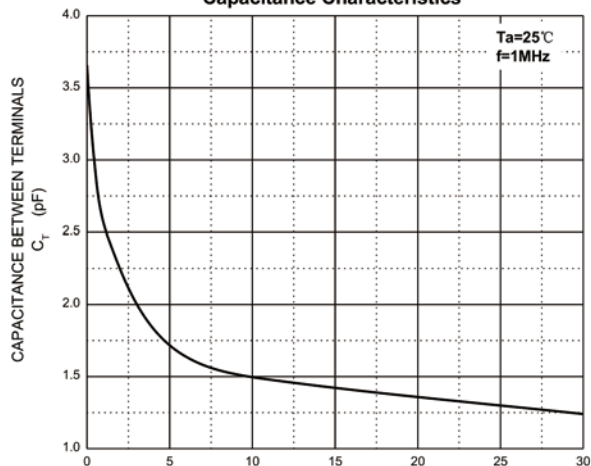


Typical Characteristics

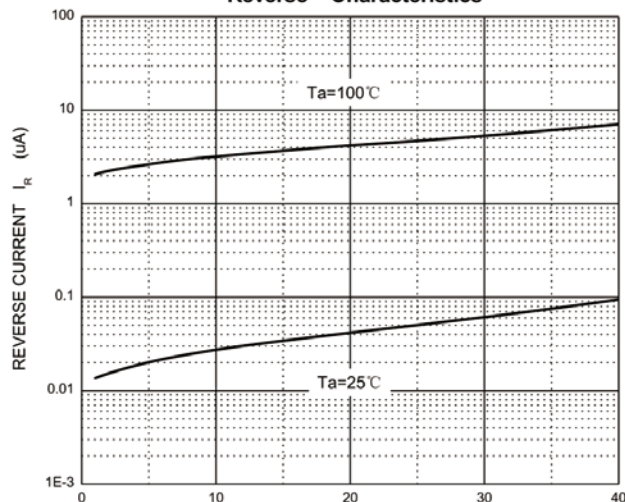
Forward Characteristics

FORWARD VOLTAGE V_F (V)

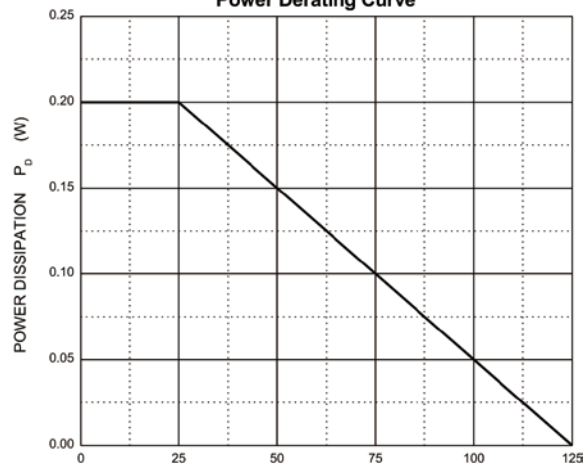
Capacitance Characteristics

REVERSE VOLTAGE V_R (V)

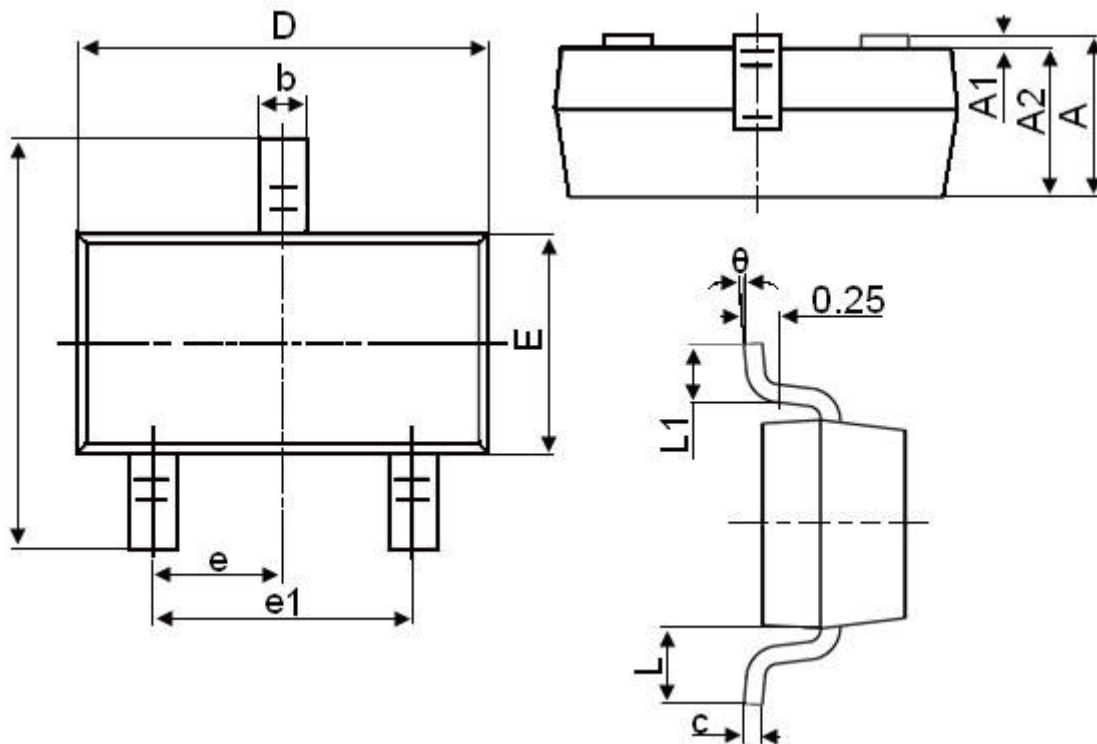
Reverse Characteristics

REVERSE VOLTAGE V_R (V)

Power Derating Curve

AMBIENT TEMPERATURE T_a ($^\circ\text{C}$)

SOT23 Package Outline Dimensions



Symbol	Dimensions in Millimeters	
	mm	
	Min	Max
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°