

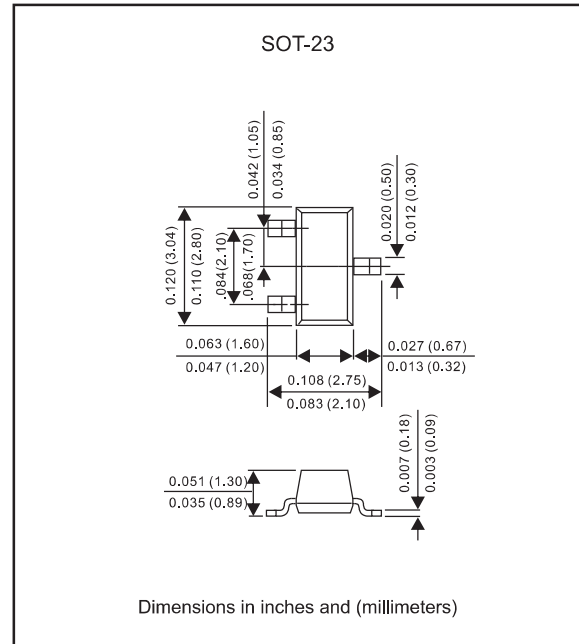
### FEATURES

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance
- Suffix"-Q1" for AEC-Q101

### Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, SOT-23
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Mounting Position : Any

### Package Outline



### Maximum Ratings @Ta=25°C

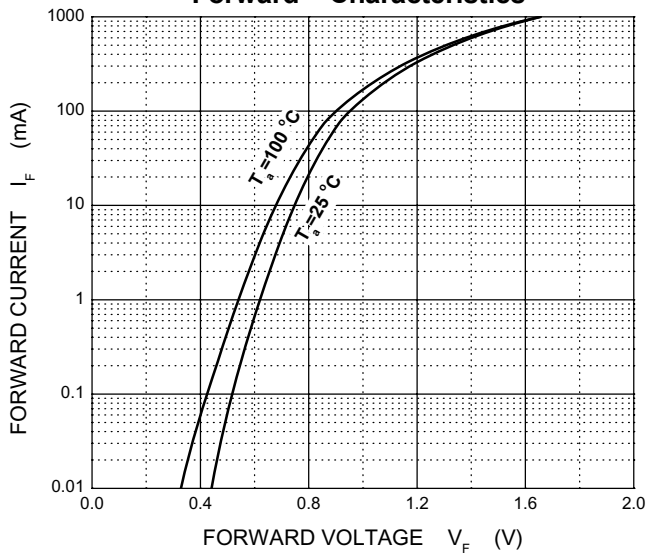
Parameter	Symbol	Limit	Unit
Repetitive peak reverse voltage	$V_{RRM}$	250	V
Working peak reverse voltage	$V_{RWM}$		
DC blocking voltage	$V_R$		
Forward continuous current	$I_{FM}$	400	mA
Average rectified output current	$I_O$	200	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	$I_{FSM}$	2.5	A
Repetitive peak forward surge current	$I_{FRM}$	625	mA
Power dissipation	$P_D$	225	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	555	°C/W
Junction temperature	$T_J$	150	°C
Storage temperature range	$T_{STG}$	-55~+150	°C

### ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

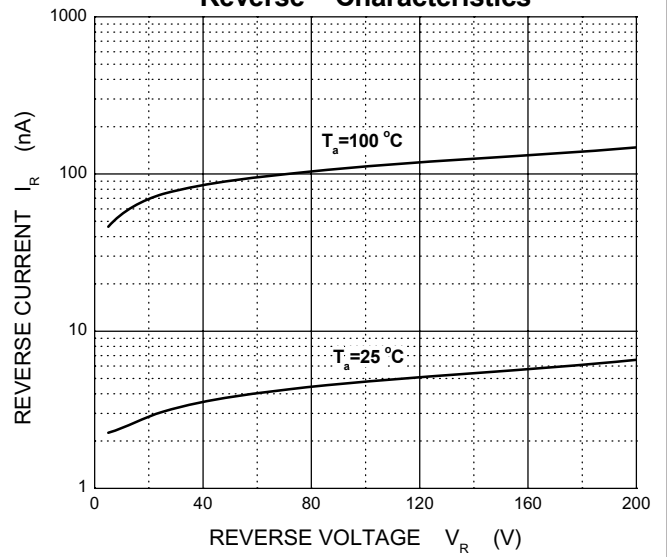
Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=100\mu A$	250		V
Reverse voltage leakage current	$I_R$	$V_R=200V$		0.1	$\mu A$
Forward voltage	$V_F$	$I_F=100mA$ $I_F=200mA$		1000 1250	mV
Diode capacitance	$C_D$	$V_R=0V, f=1MHz$		5	pF
Reverse recovery time	$t_{rr}$	$I_F=I_R=30mA, I_{rr}=0.1 \times I_R, R_L=100 \Omega$		50	ns

## Rating and characteristic curves (BAS21/A/C/S-Q1)

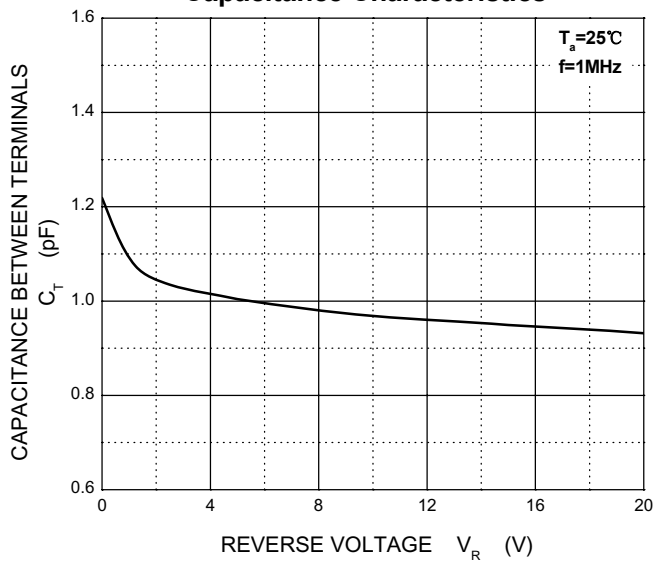
### Forward Characteristics



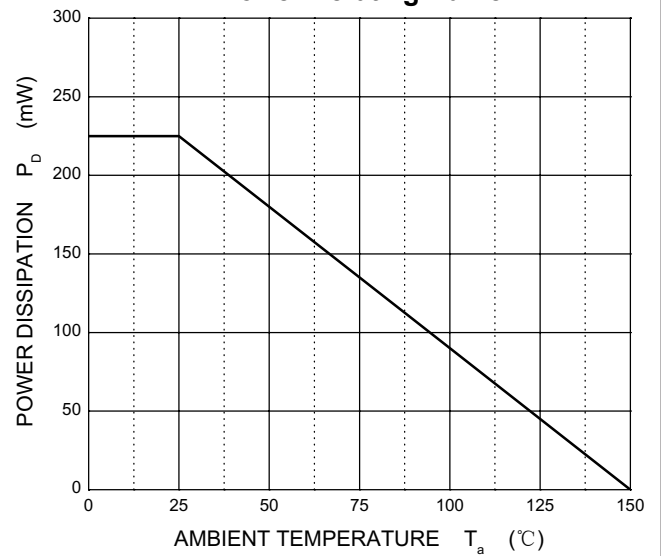
### Reverse Characteristics



### Capacitance Characteristics



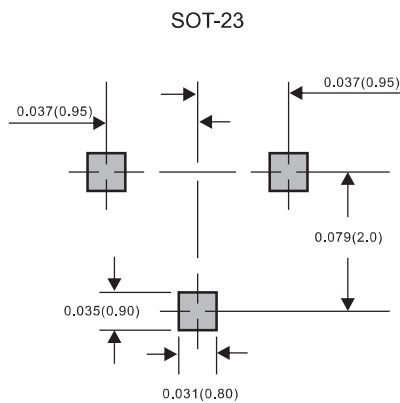
### Power Derating Curve



## Pinning information

BAS21-Q1	BAS21A-Q1	BAS21C-Q1	BAS21S-Q1
<b>MARKING: JS</b>	<b>MARKING: JS2</b>	<b>MARKING: JS3</b>	<b>MARKING: JS4</b>

## Suggested solder pad layout



Dimensions in inches and (millimeters)