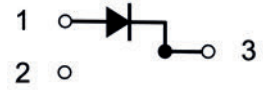


**Features**

- Fast switching speed
- Power dissipation of 225mW
- High stability and high reliability
- Low reverse leakage
- Lead free/RoHS compliant



SOT-23



Schematic Diagram



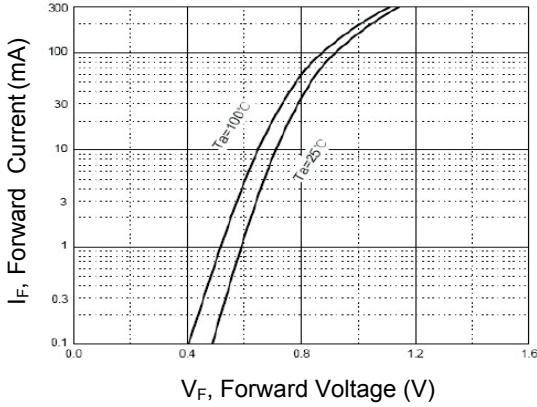
**Absolute Maximum Ratings** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

Parameters	Symbol	Value	Unit
Reverse Voltage	$V_R$	75	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	V
Power Dissipation	$P_D$	225	mW
Average Rectified Current	$I_O$	150	mA
Peak Forward Surge Current @ $T_p=1\mu\text{s}$ ( $T_A=25^{\circ}\text{C}$ )	$I_{FSM}$	2.0	A
Operating Junction Temperature	$T_J$	150	$^{\circ}\text{C}$
Storage Temperature Range	$T_s$	-55 to +150	$^{\circ}\text{C}$
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	556	$^{\circ}\text{C}/\text{W}$

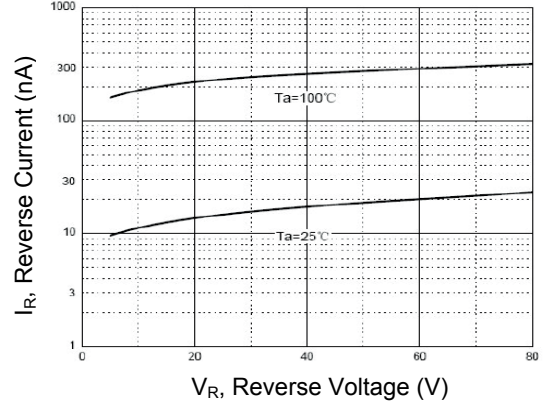
**Electrical Characteristics** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

Parameter	Symbols	Test Condition	Min	Max	Unit
Reverse Voltage	$V_{BR}$	$I_R=100\mu\text{A}$	75	-	V
Reverse Leakage Current	$I_R$	$V_R=75\text{V}$	-	1	$\mu\text{A}$
Forward Voltage	$V_F$	$I_F=1.0\text{mA}$	-	0.715	V
		$I_F=10\text{mA}$	-	0.855	
		$I_F=50\text{mA}$	-	1.00	
		$I_F=150\text{mA}$	-	1.25	
Reverse Recovery Time	$T_{RR}$	$I_F=I_R=10\text{mA}$	-	6	nS
		$R_L=100\Omega$			
		$I_{RR}=0.1 \times I_R$			
Capacitance	$C_T$	$V_R=0\text{V}$ , $F=1\text{MHZ}$	-	2	pF

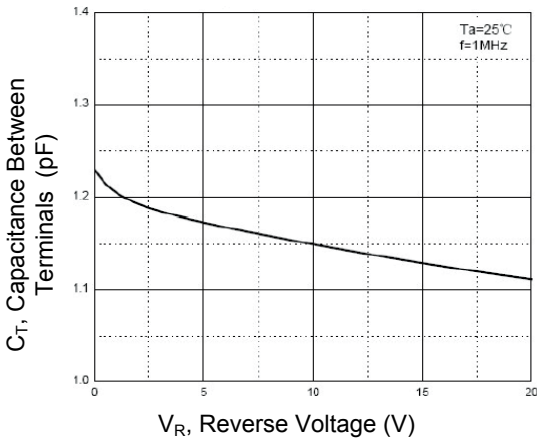
**Typical Characteristic Curves**



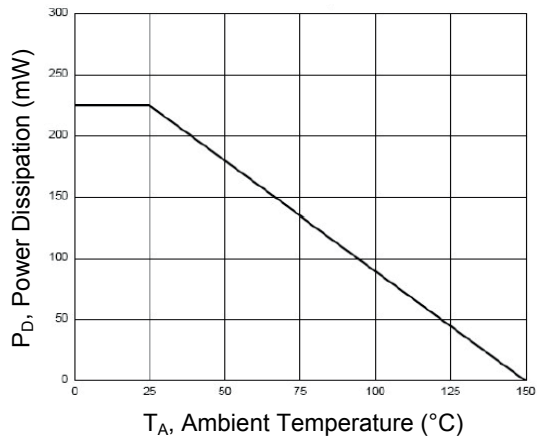
**Figure 1. Forward Characteristic**



**Figure 2. Reverse Characteristic**

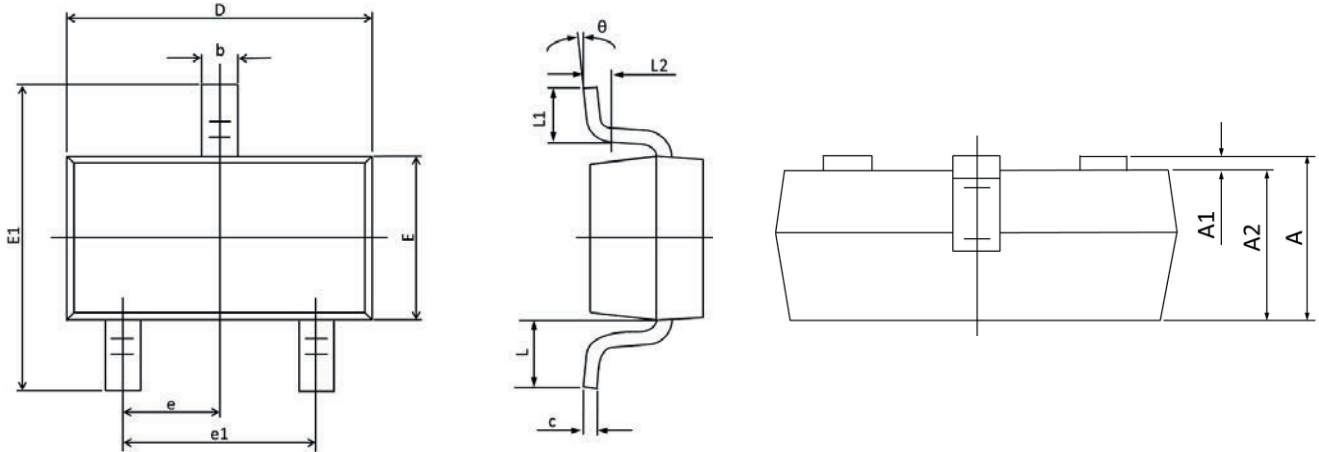


**Figure 3. Capacitance Characteristic**



**Figure 4. Power Derating Curve**

**Package Outline Dimensions (SOT-23)**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.95 TYP.		0.037 TYP.	
e1	1.800	2.000	0.071	0.079
L	0.55 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
L2	0.25 TYP.		0.01 TYP.	
$\theta$	0°	8°	0°	8°

**Order Information**

Device	Package	Marking	Packaging	SPQ
BAS16	SOT-23	A6	Tape & Reel	3,000pcs / Reel

For more information, please contact us at: [inquiry@goodarksemi.com](mailto:inquiry@goodarksemi.com)