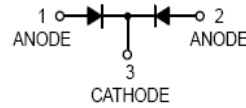
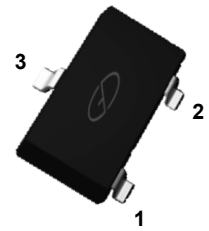


**Features**

- Low turn-on voltage
- Fast switching
- PN junction guard ring for transient and ESD protection



Schematic Diagram



SOT-523

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

Parameter	Symbol	Value	Unit
Peak Repetitive Peak Reverse Voltage	$V_{RRM}$	70	V
Working Peak Reverse Voltage	$V_{RWM}$	70	
DC Reverse Voltage	$V_R$	70	
RMS Reverse Voltage	$V_{R(RMS)}$	49	V
Forward Continuous Current <sup>1</sup>	$I_{FM}$	70	mA
Forward Surge@8.3ms	$I_{FSM}$	100	mA
Power Dissipation <sup>1</sup>	$P_d$	150	mW
Thermal Resistance, Junction to Ambient <sup>1</sup>	$R_{\theta JA}$	667	$^\circ\text{C/W}$
Junction Temperature Range	$T_j$	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Max	Unit
Forward Voltage <sup>2</sup>	$V_F$	$I_F=1\text{mA}$	0.41	V
		$I_F=15\text{mA}$	1.00	V
Reverse Leakage Current <sup>3</sup>	$I_R$	$V_R=50\text{V}$	100	nA
Capacitance Between Terminals	$C_T$	$V_R=0\text{V}$ , $f=1\text{MHz}$	2	pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=10\text{mA}$ , $I_{rr}=0.1 \cdot I_R$ , $R_L=100\Omega$	5	ns

Note:

1. Part mounted on FR-4 board with recommended pad layout.
2. pulse test,  $t_p \leq 300\mu\text{s}$
3. pulse test,  $t_p \leq 5\text{ms}$

**Typical Characteristic Curves** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

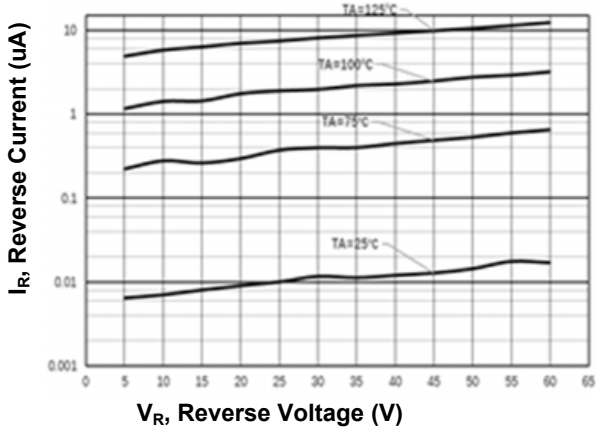


Figure 1. Typical Reverse Characteristic

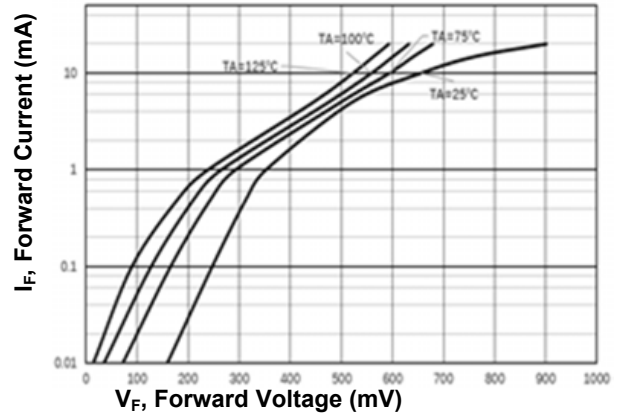


Figure 2. Typical Forward Characteristic

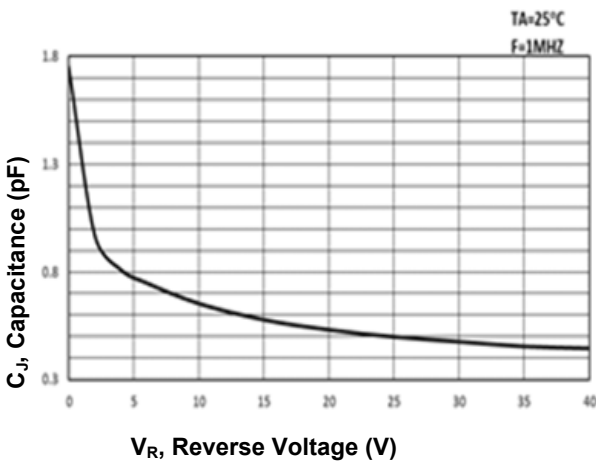


Figure 3. Capacitance VS Reverse Voltage

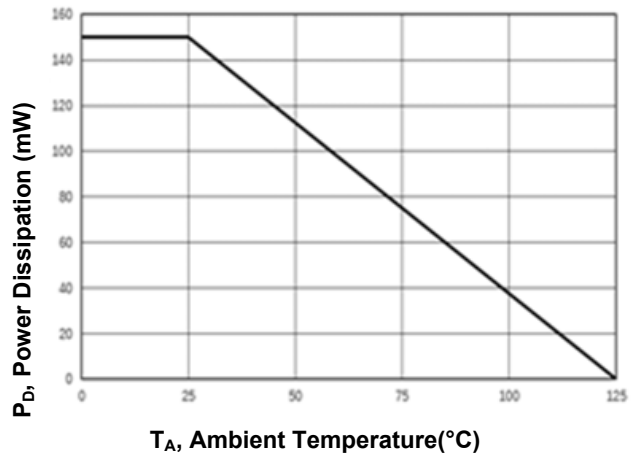
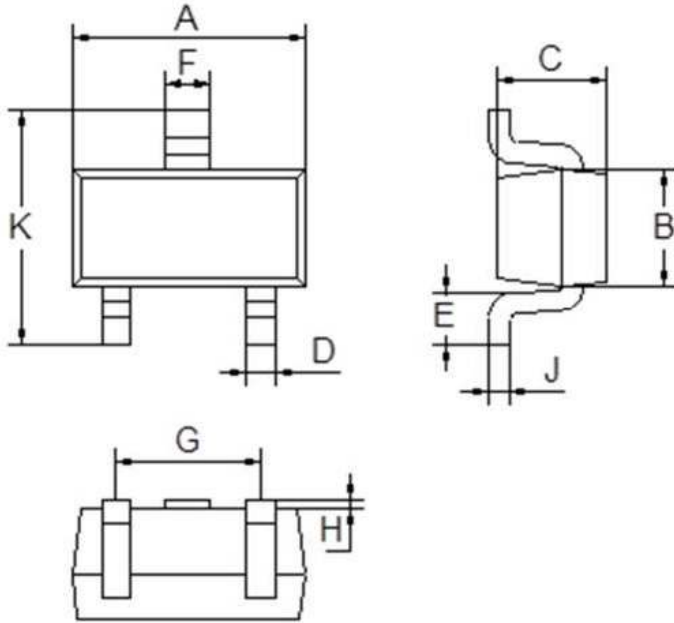


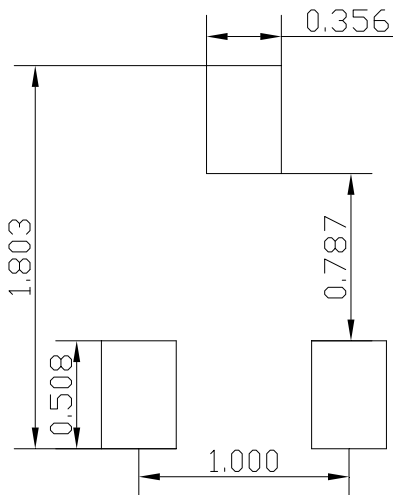
Figure 4. Derating Curve ( $P_D$ - $T_A$ )

**Package Outline Dimensions (SOT-523)**



SOT-523 (unit:mm)		
Dim	Min	Max
A	1.50	1.70
B	0.75	0.85
C	0.60	0.80
D	0.15	0.30
E	0.30	0.40
F	0.25	0.40
G	0.90	1.10
H	0.02	0.10
J	0.08	0.18
K	1.45	1.75

**Recommended Pad Layout**



Unit : mm

**Order Information**

Device	Package	Marking	Carrier	Quantity
GSBAS70-05AT	SOT-523	7E	Tape & Reel	3,000pcs