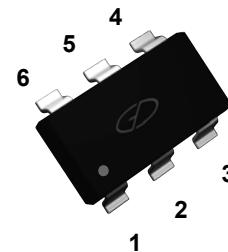


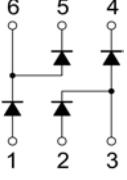
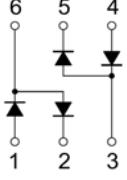
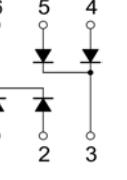
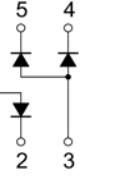
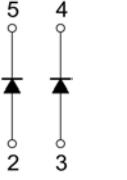
Features

- Low forward voltage drop
- Fast switching
- PN junction guard ring for transient and ESD protection



SOT-363

Schematic Diagram and Marking

GSBAS70DW-03	GSBAS70DW-04	GSBAS70DW-05	GSBAS70DW-06	GSBAS70DW-07
				
Marking: K75	Marking: K74	Marking: K71	Marking: K76	Marking: K73

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	70	V
Peak Working Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	49	V
Forward Continuous Current	I_O	70	mA
Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	100	mA
Power Dissipation	P_D	200	mW
Thermal Resistance, From Junction to Ambient	$R_{\theta JA}$	500	°C/W
Operating Junction Temperature Range	T_J	-40 to +125	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

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

Parameter	Symbol	Test Conditions	Min	Max	Unit
Reverse Voltage	V_{BR}	$I_R=10\mu\text{A}$	70	-	V
Reverse Current	I_R	$V_R=50\text{V}$	-	0.1	μA
Forward Voltage	V_F	$I_F=1\text{mA}$	-	0.41	V
		$I_F=15\text{mA}$	-	1	
Total Capacitance	C_{tot}	$V_R=0\text{V}, F=1\text{MHz}$	-	2	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10\text{mA} \text{ to } I_R=1\text{mA}, I_{rr}=0.1 \times I_R, R_L=100\Omega$	-	5	nS

Ratings and Characteristic Curves

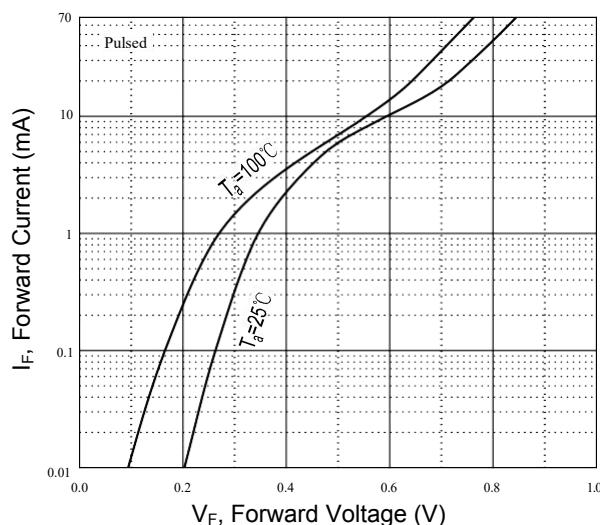


Figure 1. Forward Characteristics

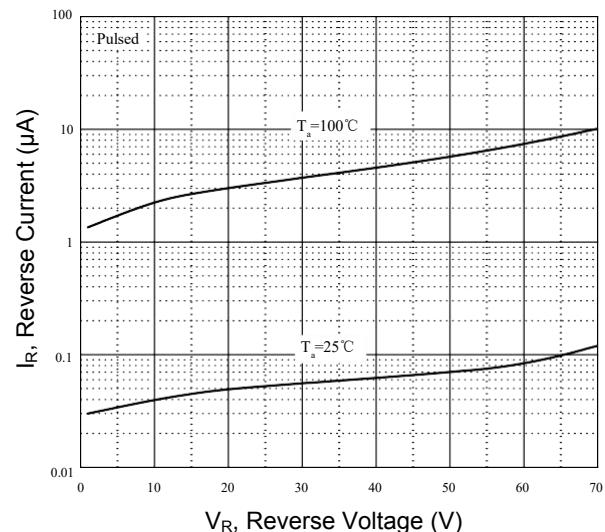


Figure 2. Reverse Characteristics

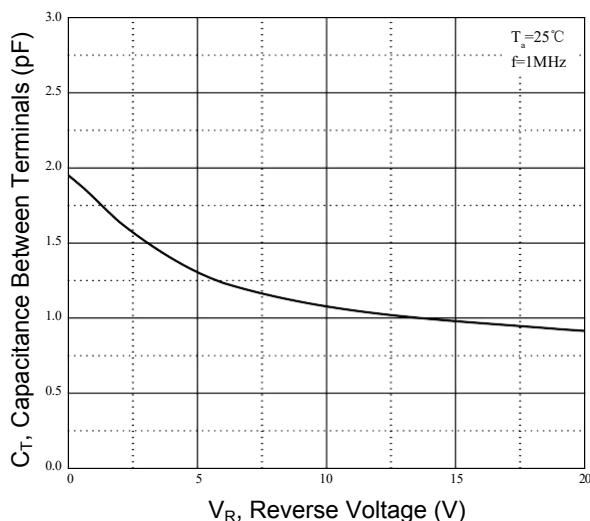


Figure 3. Capacitance Characteristics

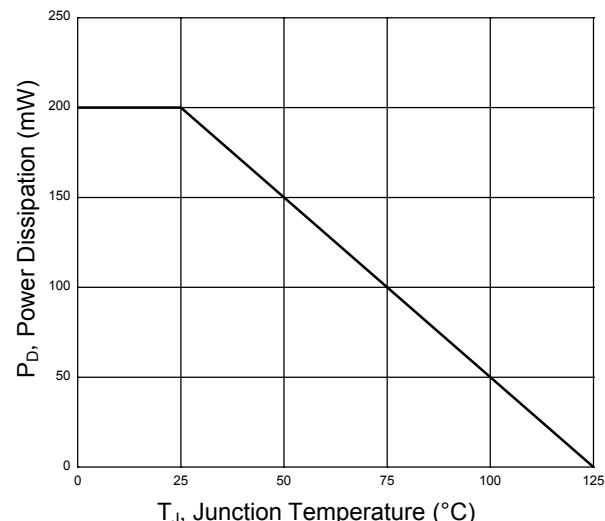
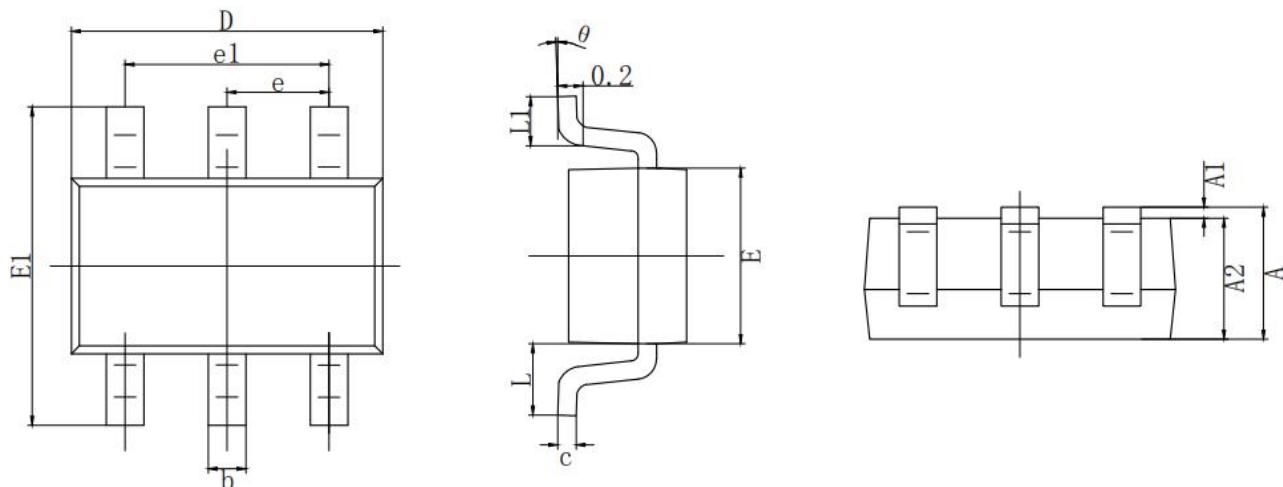


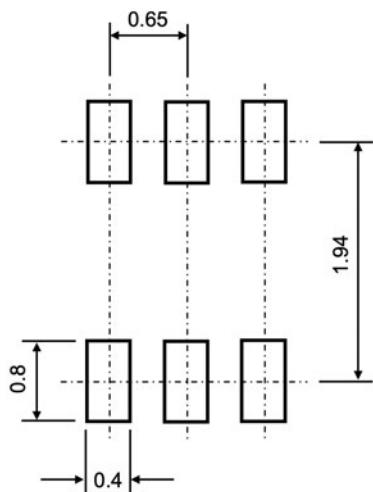
Figure 4. Power Derating Curve

Package Outline Dimensions (SOT-363)



Symbol	Dimensions in Millimeters		Symbol	Dimensions in Millimeters	
	Min	Max		Min	Max
A	0.900	1.100	E1	2.150	2.450
A1	0.000	0.100	e	0.650 TYP	
A2	0.900	1.000	e1	1.200	1.400
b	0.150	0.350	L	0.525 REF	
c	0.080	0.150	L1	0.260	0.460
D	2.000	2.200	θ	0°	8°
E	1.150	1.350			

Recommended Pad Layout



Note:

1. Controlling dimensions: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.