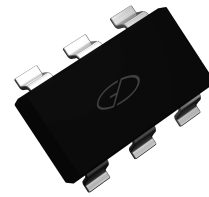
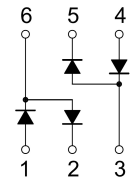


### Features

- Small Plastic Package
- High Switching Speed
- Low Capacitance



GCH1 6'



Schematic Diagram

### Absolute Maximum Ratings (T<sub>A</sub>=25°C unless otherwise specified)

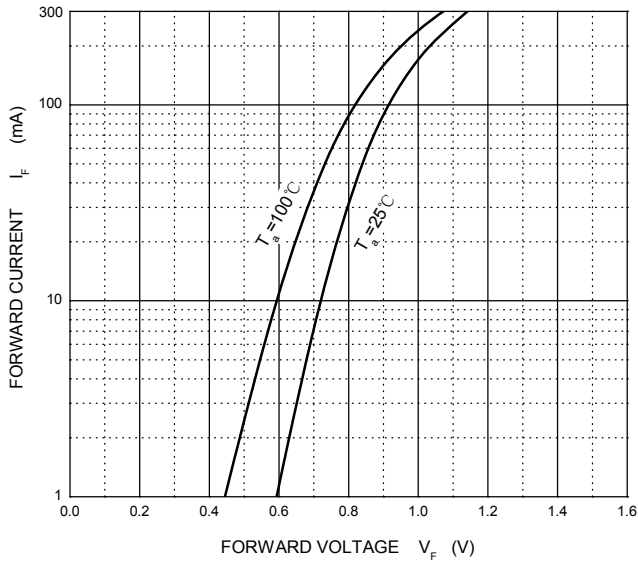
Parameter	Symbol	Limit	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	85	V
Reverse Voltage	V <sub>R</sub>	75	V
Forward Current	I <sub>F</sub>	150	mA
Repetitive Peak Forward Current	I <sub>FRM</sub>	450	
Non-Repetitive Peak Forward Surge Current @ t=8.3ms	I <sub>FSM</sub>	2.5	A
Power Dissipation	P <sub>D</sub>	200	mW
Thermal Resistance from Junction to Ambient	R <sub>ΘJA</sub>	625	°C/W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55 to +150	

### Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise specified)

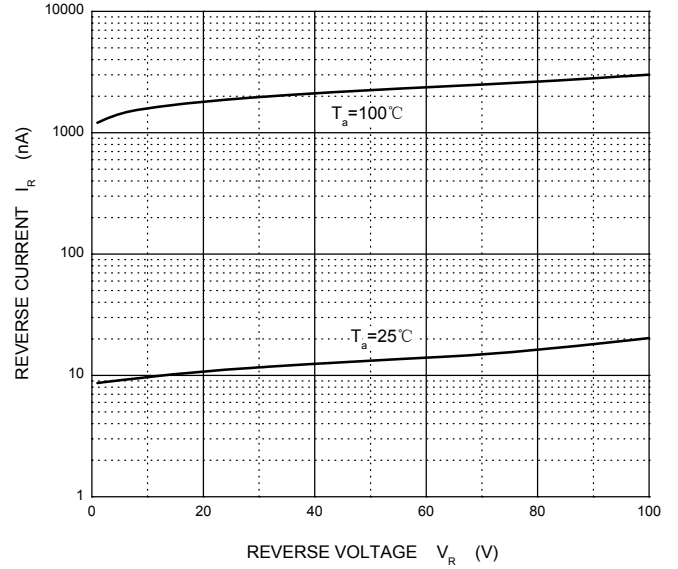
Parameter	Symbol	Test Conditions	Min	Max	Unit
Reverse Voltage	V <sub>(BR)</sub>	I <sub>R</sub> =100μA	75	—	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =75V	—	1	μA
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1mA	—	0.715	V
		I <sub>F</sub> =10mA	—	0.855	
		I <sub>F</sub> =50mA	—	1	
		I <sub>F</sub> =150mA	—	1.25	
Total Capacitance	C <sub>tot</sub>	V <sub>R</sub> =0, f=1MHz	—	1.5	pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> = I <sub>R</sub> =10mA, I <sub>rr</sub> =0.1×I <sub>R</sub> , R <sub>L</sub> =100Ω	—	6	ns

**Typical Characteristics Curves**

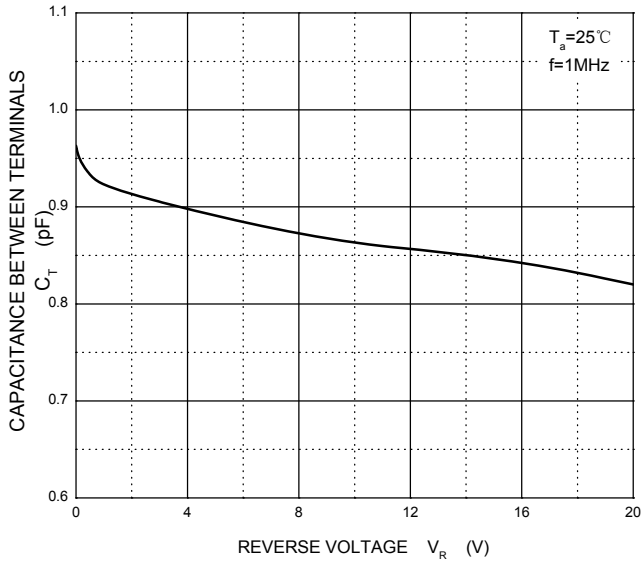
**Forward Characteristics**



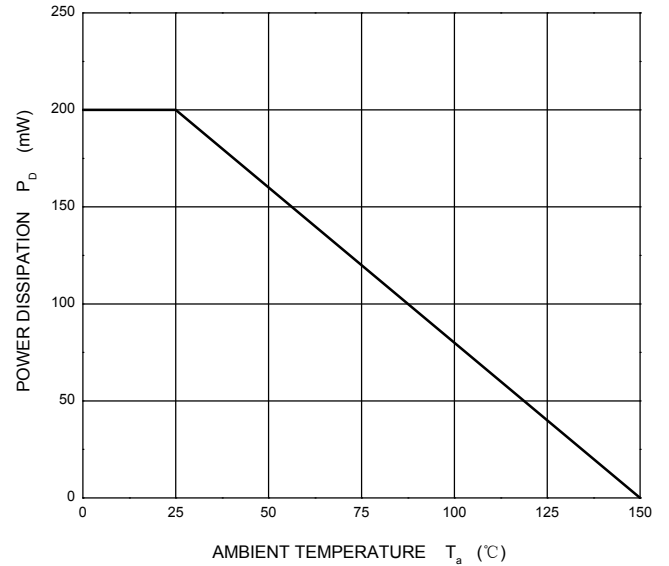
**Reverse Characteristics**



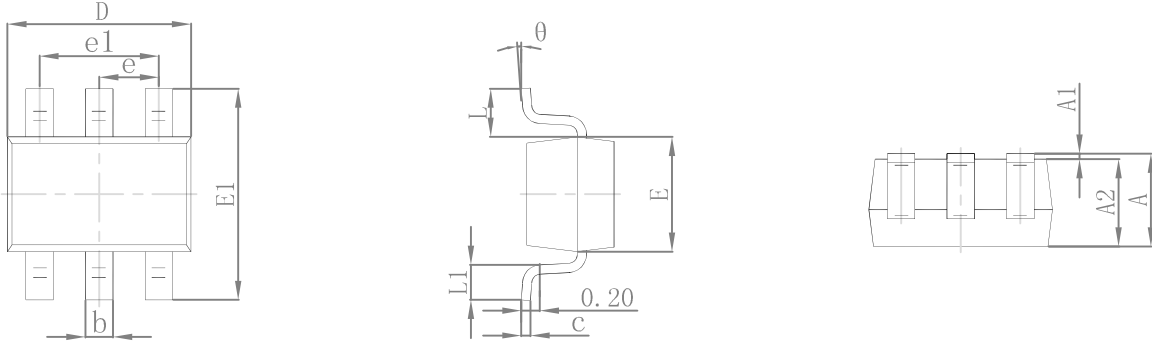
**Capacitance Characteristics**



**Power Derating Curve**

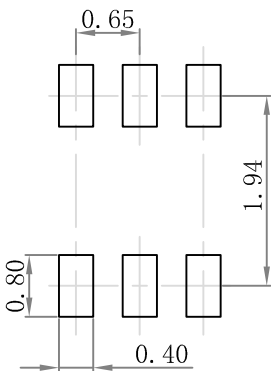


**Package Outline Dimensions SOT-363**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.100	0.150	0.004	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.400	0.085	0.094
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

**Suggested Pad Layout**



- Note:
1. Controlling dimension: in millimeters.
  2. General tolerance: ± 0.05mm.
  3. The pad layout is for reference purposes only.

**Order Information**

Device	Package	Marking	Carrier	Quantity	HSF Status
GSBAV99S	SOT-363	K1	Tape & Reel	3000pcs / Reel	RoHS compliant