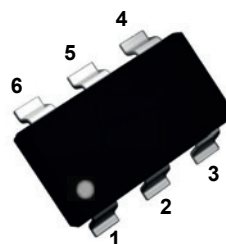


Features

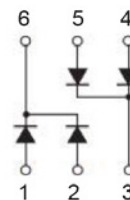
- Fast switching speed
- For general purpose switching applications
- Halogen-free, RoHS compliant
- Ultra-small surface mount package

Mechanical Data

- Package type: SOT-363
- Epoxy UL: 94V-0
- Mounting position: Any



SOT-363



Schematic Diagram

Maximum Ratings & Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified)

Parameters	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}	100	V
DC Blocking Voltage	V_R	75	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_O	150	mA
Non-Repetitive Peak Forward Surge Current @ $t=8.3ms$	I_{FSM}	2.0	A
Power Dissipation	P_D	200	mW
Thermal Resistance Junction-to-Ambient	$R_{\theta JA}$	625	°C/W
Junction and Storage Temperature	T_J, T_{STG}	-55 to +150	°C

Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified)

Parameters	Symbol	Test Condition	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=1mA$	-	-	0.715	V
		$I_F=10mA$	-	-	0.855	
		$I_F=50mA$	-	-	1	
		$I_F=150mA$	-	-	1.25	
Reverse Voltage	V_R	$I_R=2.5\mu A$	75	-	-	V
Reverse Current	I_R	$V_R=75V$	-	-	2.5	μA
		$V_R=20V$	-	-	25	nA
Total Capacitance	C_T	1MHz, $V_R=0V$	-	-	2	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10mA$, $I_{rr}=0.1 \times I_R$, $R_L=100\Omega$	-	-	4	nS

Typical Characteristic Curves

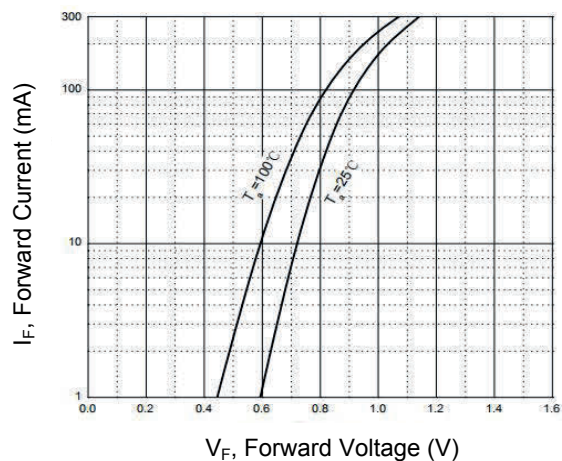


Figure 1. Forward Characteristics

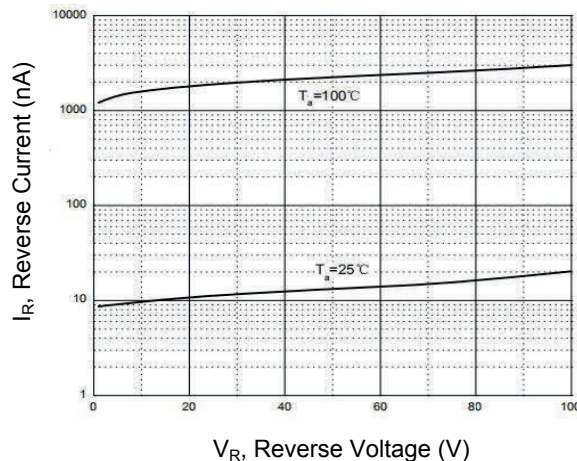


Figure 2. Reverse Characteristics

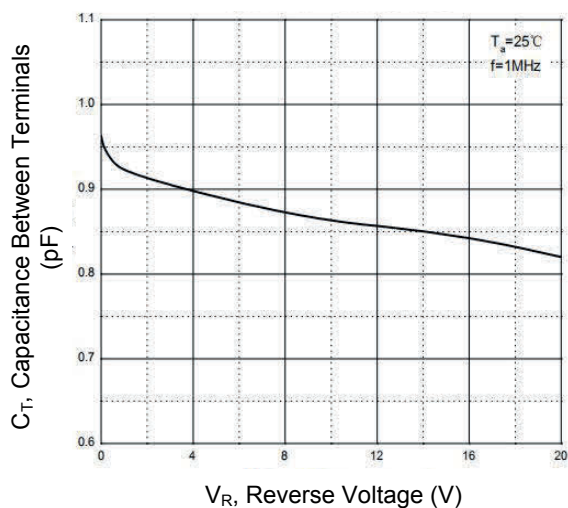


Figure 3. Capacitance Characteristics

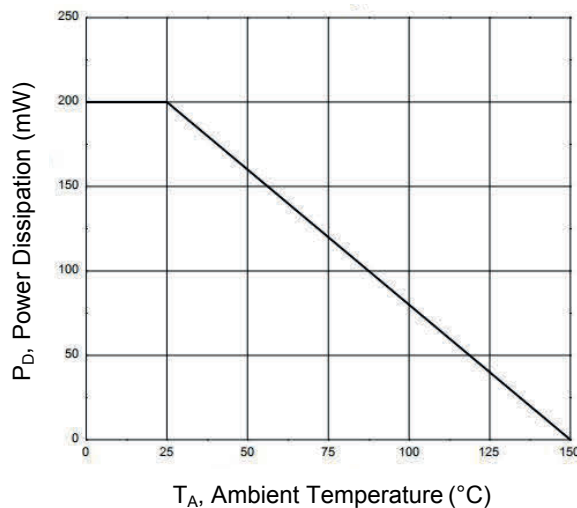
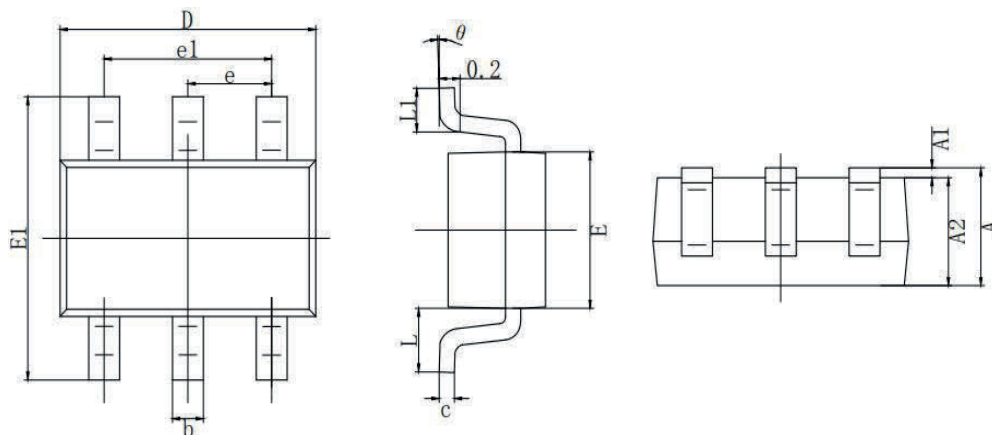


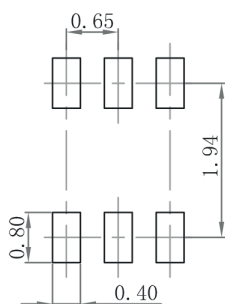
Figure 4. Power Derating Curve

Package Outline Dimensions (SOT-363)



Symbol	Dimensions In Millimeters		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	0.080	0.150	0.003	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°

Recommended Pad Layout



Note:

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

Order Information

Device	Package	Marking	Carrier	Quantity
GSBAV70DW	SOT-363	KJA	Tape & Reel	3,000pcs / Reel