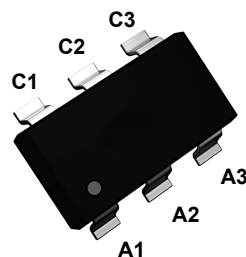


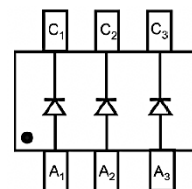
GSMMBD4448HTW Switching Diode

Features

- Epoxy meets UL 94V-0 flammability rating
- Lead free finish / RoHS compliant
- For switching applications
- Rugged and reliable



SOT-363



Schematic Diagram

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

Parameter	Symbol	Value	Units
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Repetitive Peak Reverse Voltage	V_{RRM}	80	V
Repetitive Peak Forward Current	I_{FRM}	500	mA
Continuous Forward Current	I_O	250	mA
Non-Repetitive Peak Forward Surge Current @ $t=1\mu\text{s}$	I_{FSM}	4	A
Non-Repetitive Peak Forward Surge Current @ $t=1.0\text{s}$		1.5	
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	$^{\circ}\text{C/W}$
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-65 to +150	$^{\circ}\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Reverse Breakdown Voltage	V_{BR}	$I_R=100\mu\text{A}$	80	-	-	V
Reverse Voltage Leakage Current	I_R	$V_R=20\text{V}$	-	-	25	nA
		$V_R=70\text{V}$	-	-	100	nA
Forward Voltage	V_F	$I_F=5\text{mA}$	0.62	-	0.72	V
		$I_F=10\text{mA}$	-	-	0.855	V
		$I_F=50\text{mA}$	-	-	1.0	V
		$I_F=150\text{mA}$	-	-	1.25	V
Diode Capacitance	C_D	$V_R=6.0\text{V}$, $f=1\text{MHz}$	-	-	3.5	pF
Reverse Recovery Time	t_{rr}	$I_F=5\text{mA}$, $V_R=6\text{V}$	-	-	4.0	nS

Typical Characteristics Curves

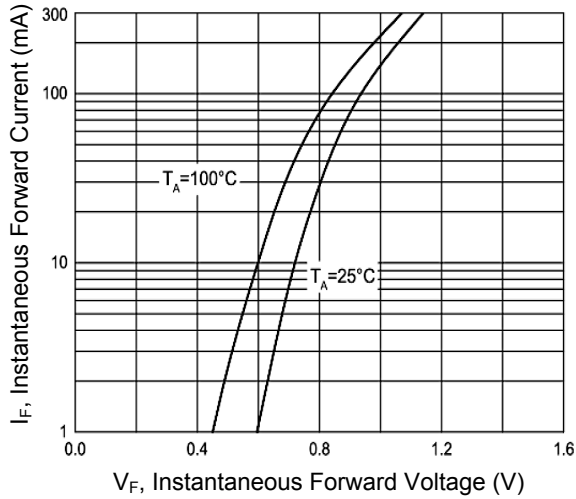


Figure 1. Typical Instantaneous Forward Characteristics

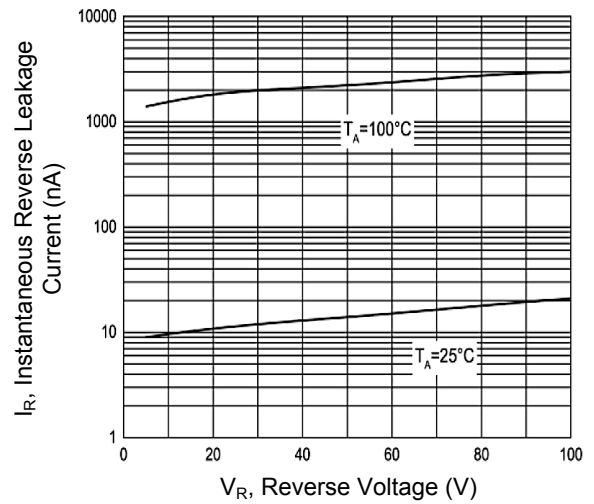


Figure 2. Typical Reverse Leakage Characteristics

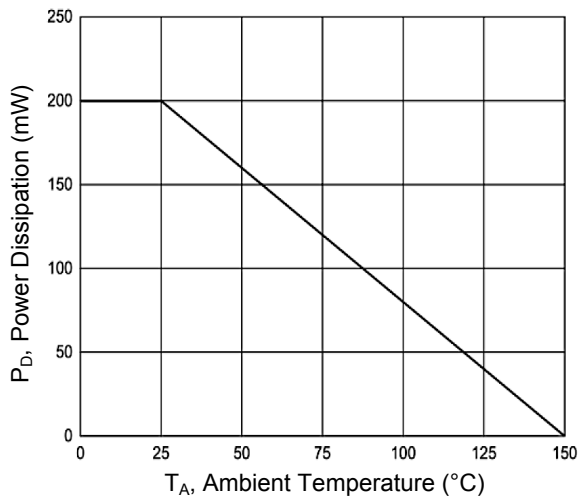
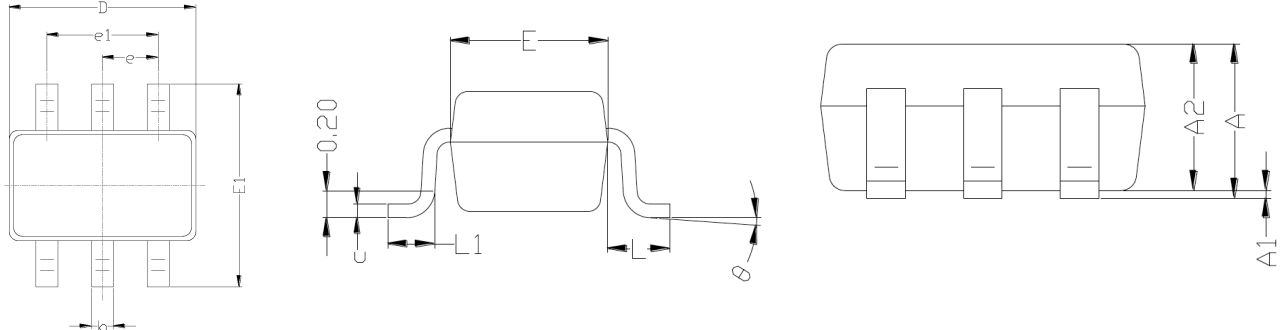


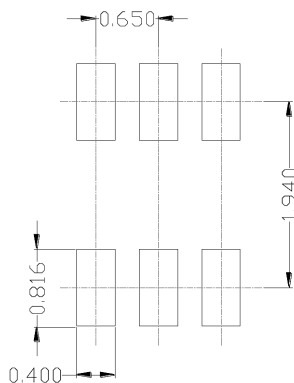
Figure 3. Power Derating Curve

Package Outline Dimensions (SOT-363)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.000	0.035	0.039
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°

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
GSMMBD4448HTW	SOT-363	KAA	Tape & Reel	3,000 Pcs / Reel