

# SOT-563 Plastic-Encapsulate Diodes

## MMBD4448V SWITCHING DIODE

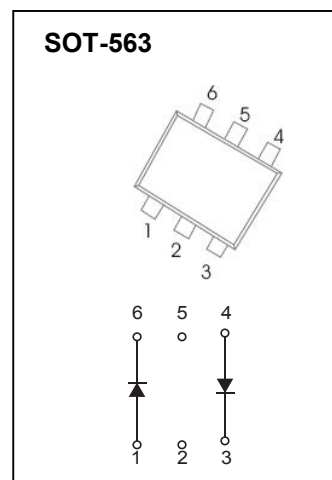
### FEATURES

- Fast switching speed
- High conductance

### MARKING: KAL



KAL=Device code  
Solid point=Pin1 positioning point



### Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Peak Reverse Voltage	$V_{RRM}$	80	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$	57	V
RMS Reverse Voltage	$V_{R(RMS)}$		
Forward Continuous Current	$I_{FM}$	500	mA
Average Rectified Output Current	$I_O$	250	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	$I_{FSM}$	2.0	A
Power Dissipation	$P_d$	150	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	833	°C/W
Operation Junction and Storage Temperature Range	$T_j, T_{STG}$	-55~+150	°C

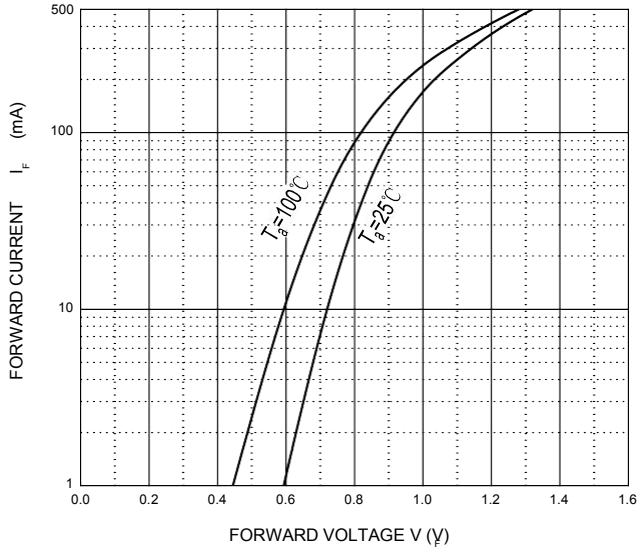
### Electrical Ratings @Ta=25°C

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)}$	80			V	$I_R=2.5 \mu A$
Forward voltage	$V_{F1}$	0.62		0.72	V	$I_F=5mA$
	$V_{F2}$			0.855	V	$I_F=10mA$
	$V_{F3}$			1.0	V	$I_F=100mA$
	$V_{F4}$			1.25	V	$I_F=150mA$
Reverse current	$I_{R1}$			0.1	$\mu A$	$V_R=70V$
	$I_{R2}$			25	nA	$V_R=20V$
Capacitance between terminals	$C_T$			3.5	pF	$V_R=6V, f=1MHz$
Reverse recovery time	$t_{rr}$			4	ns	$I_F=I_R=10mA$ $I_{rr}=0.1I_R, R_L=100\Omega$

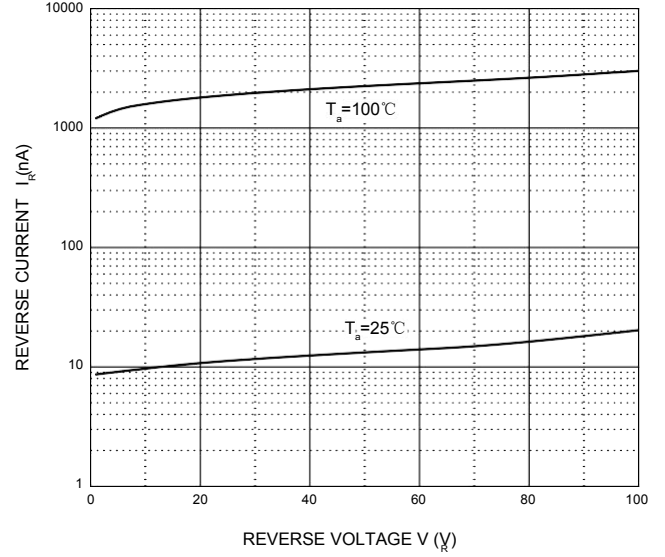


## Typical Characteristics

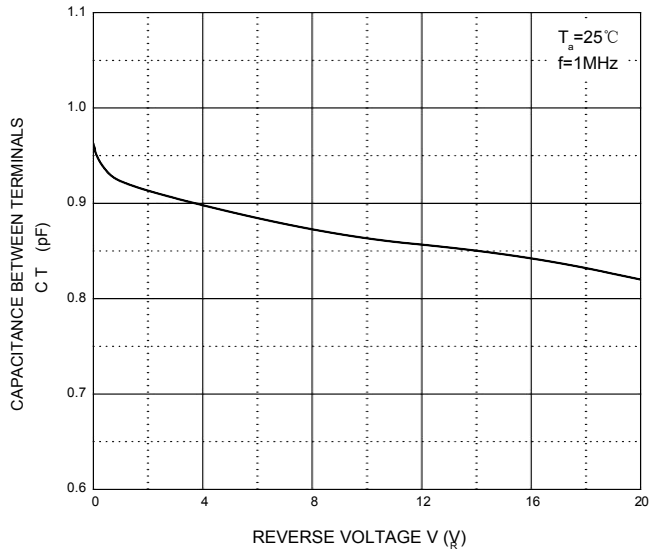
### Forward Characteristics



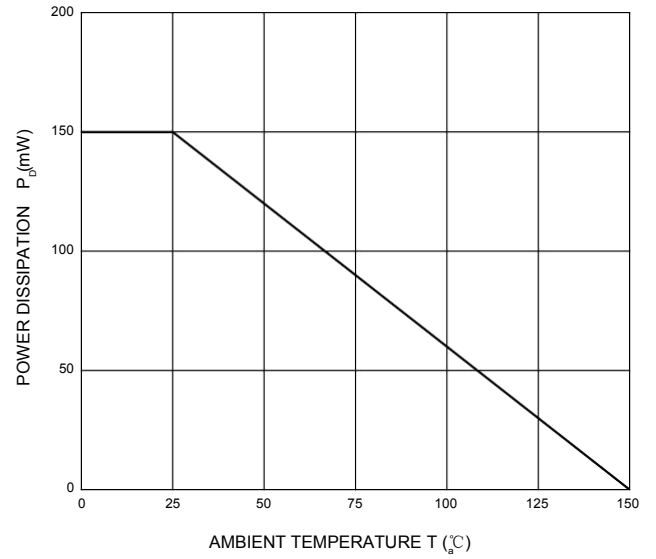
### Reverse Characteristics



### Capacitance Characteristics

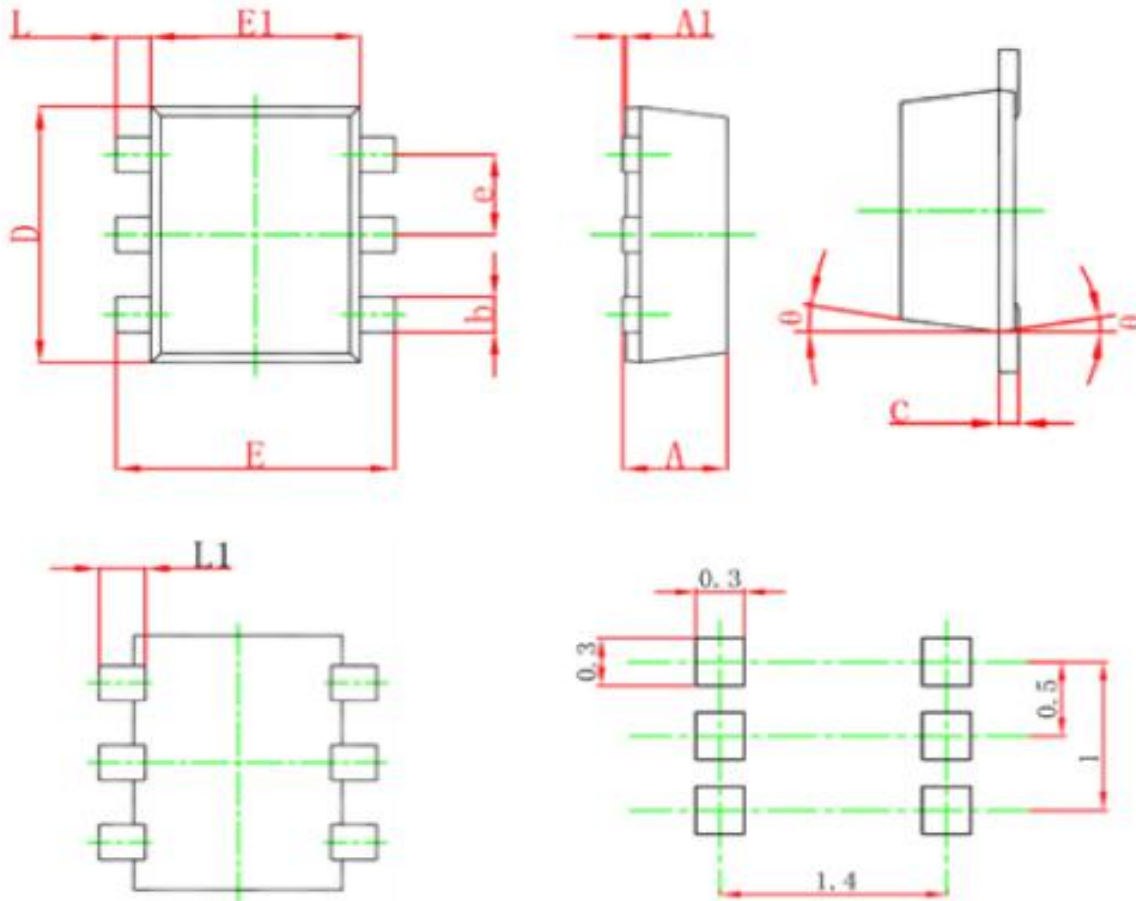


### Power Derating Curve





## SOT-563 Package Outline Dimensions



Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.525	0.600
AI	0.000	0.050
e	0.450	0.550
c	0.090	0.160
D	1.500	1.700
b	0.170	0.270
EI	1.100	1.300
E	1.500	1.700
L	0.100	0.300
LI	0.200	0.400
θ	7 °REF.	