

## Plastic-Encapsulate Diodes

SWITCHING DIODE

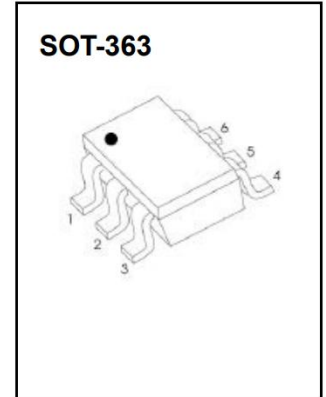
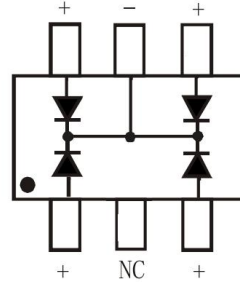
### FEATURES

- 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

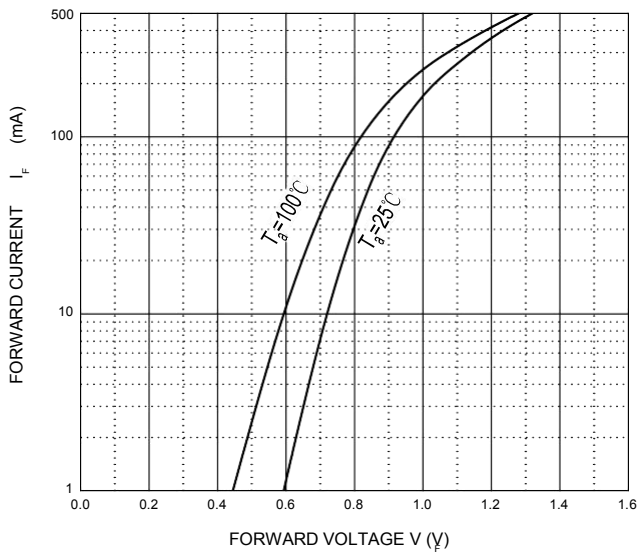
Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Peak Reverse Voltage	$V_{RRM}$	80	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	57	V
Forward Continuous Current	$I_{FM}$	500	mA
Average Rectified Output 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	$R_{\theta JA}$	625	°C/W
Operation Junction and Storage Temperature Range	$T_j, T_{STG}$	-55~+150	°C

### Electrical Ratings @Ta=25°C

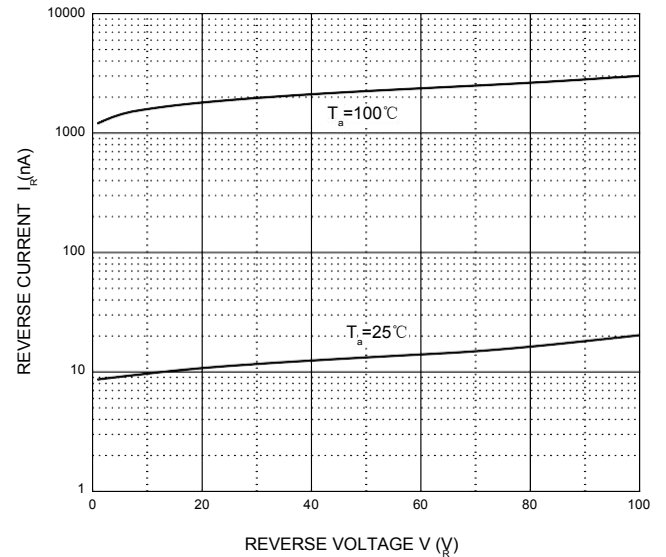
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)}$	80			V	$I_R=2.5 \mu A$
Forward voltage	$V_{F1}$	0.62		0.72	V	$I_F=5mA$
	$V_{F2}$			0.855	V	$I_F=10mA$
	$V_{F3}$			1.0	V	$I_F=100mA$
	$V_{F4}$			1.25	V	$I_F=150mA$
Reverse current	$I_{R1}$			0.1	$\mu A$	$V_R=70V$
	$I_{R2}$			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

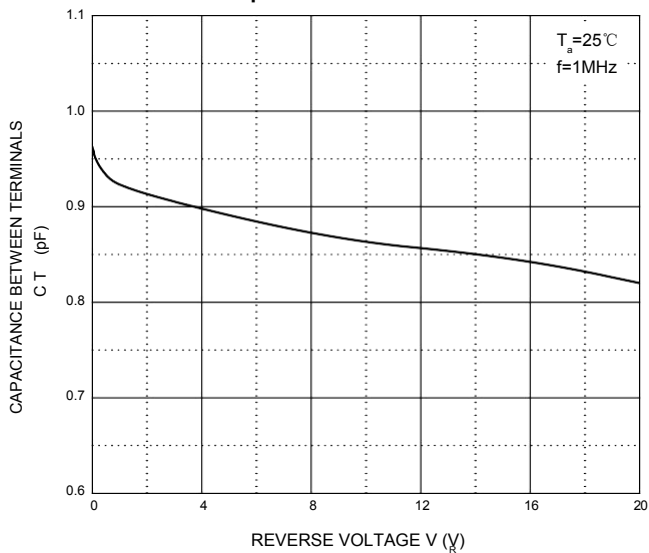
**Forward Characteristics**



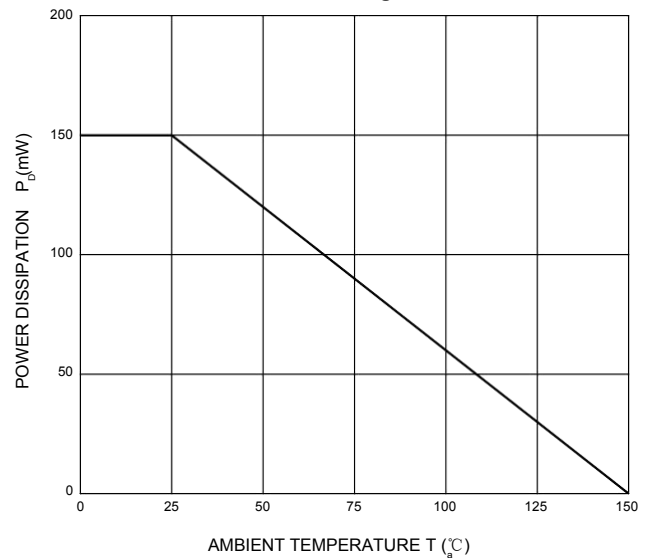
**Reverse Characteristics**



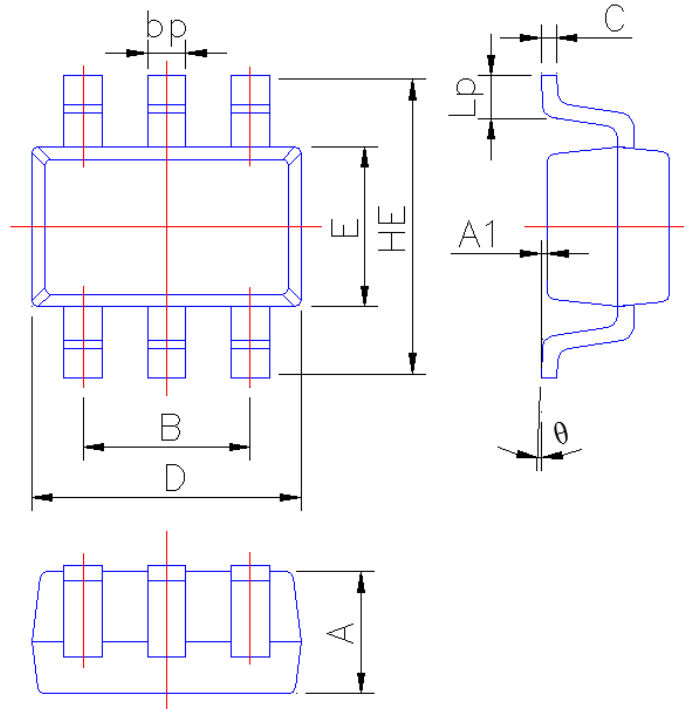
**Capacitance Characteristics**



**Power Derating Curve**



## SOT-363 Package Outline Dimensions



Symbol	Dimension in Millimeters	
	Min	Max
A	0.90	1.00
A1	0.010	0.100
B	1.20	1.40
bp	0.25	0.45
C	0.09	0.15
D	2.00	2.20
E	1.15	1.35
HE	2.15	2.55
Lp	0.25	0.46
theta	0°	6°