

SOT-363 Plastic-Encapsulate Diodes

Switching Diode

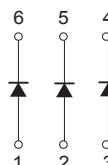
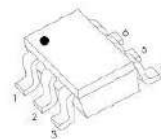
Features:

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance Power Dissipation

MARKING:KA3



SOT-363



Maximum Ratings and Electrical Characteristics, Single Diode @ $T_a=25^\circ\text{C}$

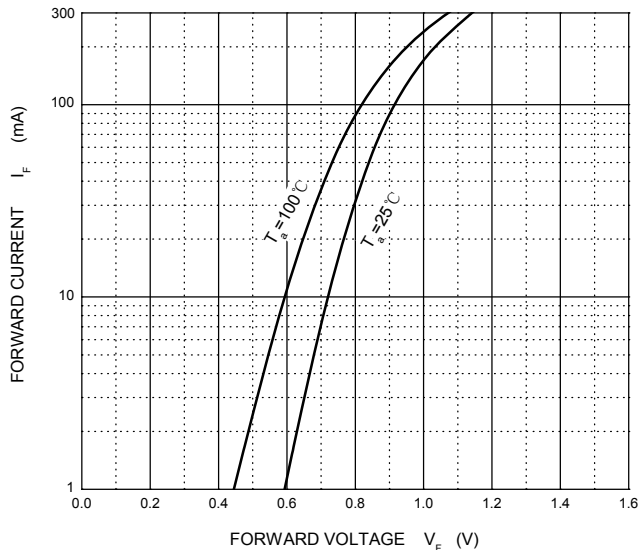
Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	I_{FM}	500	mA
Average Rectified Output Current	I_O	250	mA
Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	2.0	A
Power Dissipation	P_d	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Operation Junction and Storage Temperature Range	T_J, T_{STG}	-55 ~ +150	$^\circ\text{C}$

Electrical Ratings @ $T_a=25^\circ\text{C}$

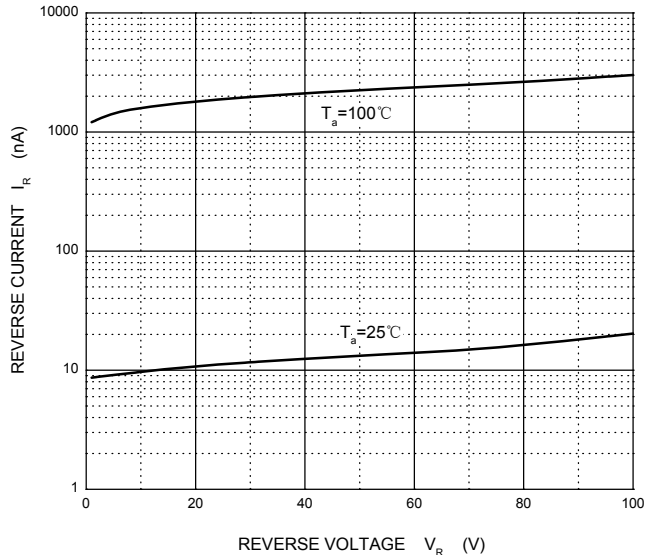
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse Breakdown Voltage	$V_{(BR)R}$	75			V	$I_R=10\mu\text{A}$
Forward Voltage	V_{F1}	0.62		0.72	V	$I_F=5\text{mA}$
	V_{F2}			0.855	V	$I_F=10\text{mA}$
	V_{F3}			1.0	V	$I_F=50\text{mA}$
	V_{F4}			1.25	V	$I_F=150\text{mA}$
Reverse Current	I_{R1}			2.5	μA	$V_R=75\text{V}$
	I_{R2}			25	nA	$V_R=20\text{V}$
Capacitance Between Terminals	C_T			4	pF	$V_R=0\text{V}, f=1\text{MHz}$
Reverse Recovery Time	t_{rr}			4	ns	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1I_R, R_L=100\Omega$

Typical Characteristics

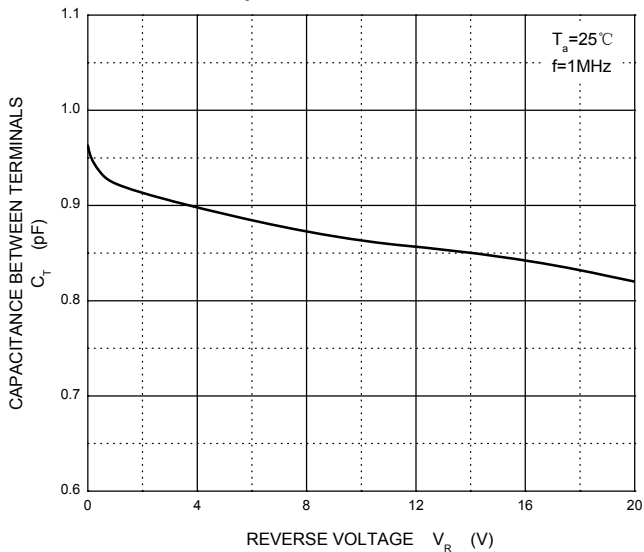
Forward Characteristics



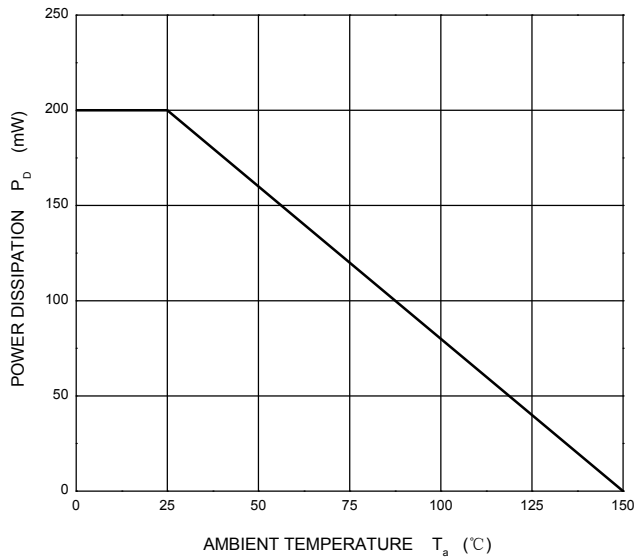
Reverse Characteristics



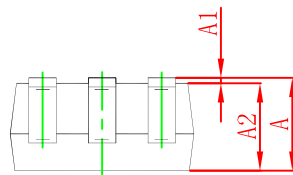
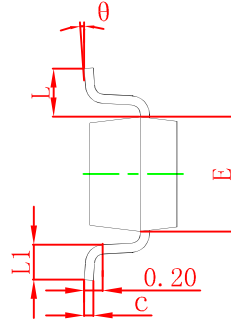
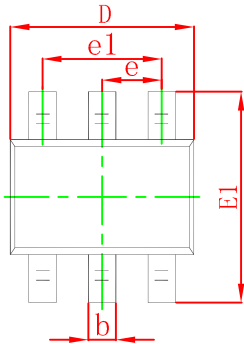
Capacitance Characteristics



Power Derating Curve

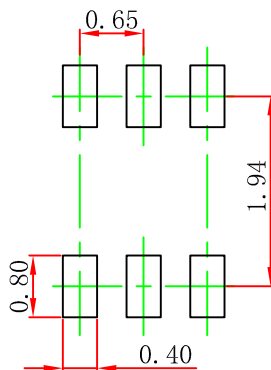


SOT-363 Package Outline Dimensions



Symbol	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
theta	0°	8°	0°	8°

SOT-363 Suggested Pad Layout

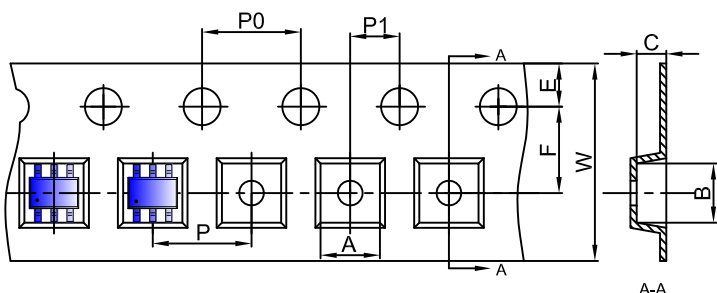


Note:

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

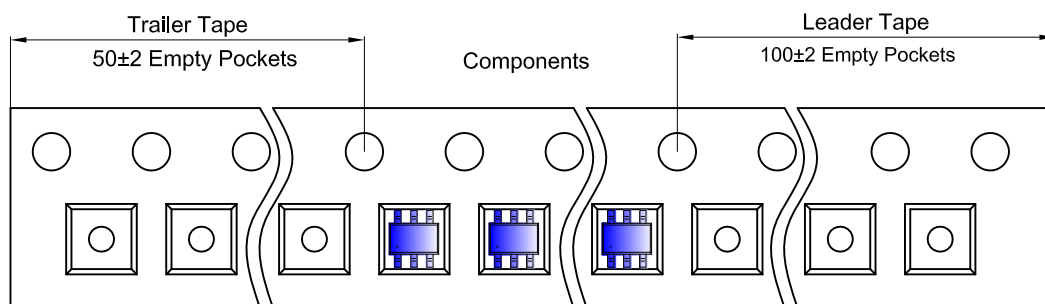
SOT-363 Tape and Reel

SOT-363 Embossed Carrier Tape

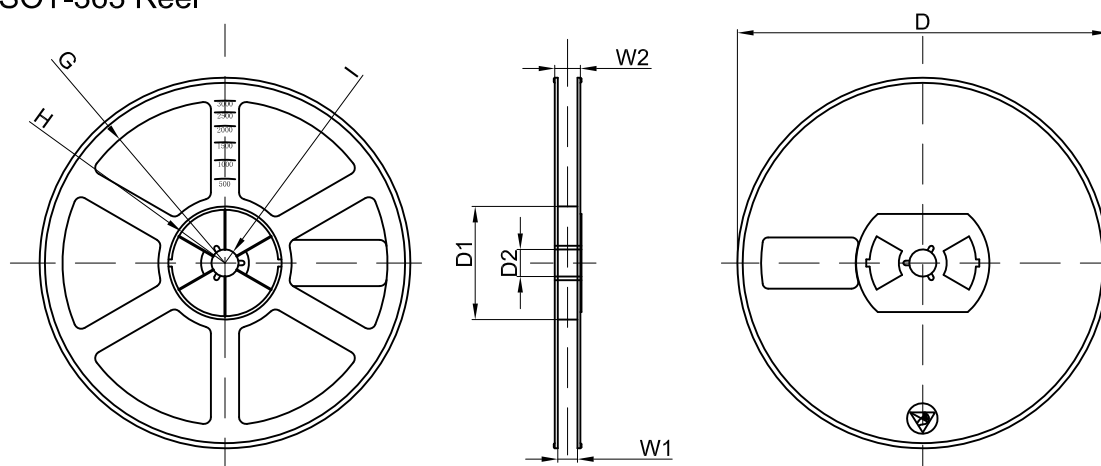


Dimensions are in millimeter											
Pkg type	A	B	C	d	E	F	P0	P	P1	W	
SOT-363	2.25	2.55	1.20	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00	

SOT-363 Tape Leader and Trailer



SOT-363 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	