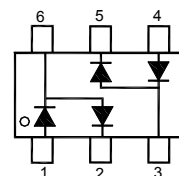
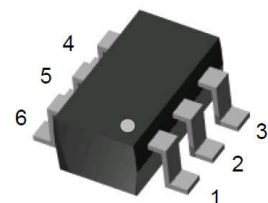


SWITCHING DIODE
FEATURES

- Fast switching
- High conductance
- Surface mount device
- For high speed switching applications

MECHANICAL DATA

- Case: SOT-363
- Case material: Molded plastic. UL flammability
- Classification rating: 94V-0
- Weight: 0.008 grams (approximate)



1. A1 2. C1 3. AC2
4. A2 5. C2 6. AC1

SOT-363
■ Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

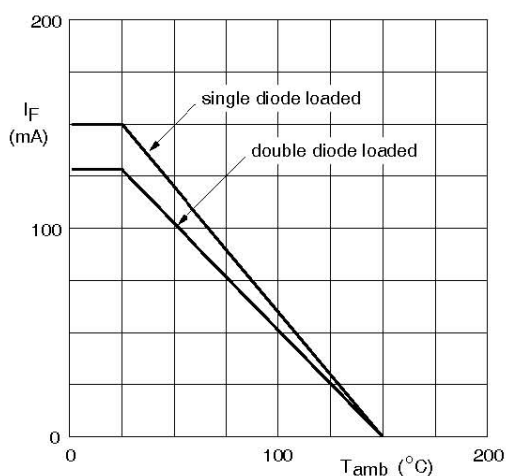
Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	85	V
Reverse Voltage	V_R	75	V
Continuous Forward Current	I_F	150	mA
Single Diode Load		130	
Double Diode Load			
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	4	A
at $t = 1 \mu\text{s}$		1	
at $t = 1 \text{ ms}$		0.5	
at $t = 1 \text{ s}$			
Total Power Dissipation	P_{tot}	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 Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

■ Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Forward Voltage	V_F	0.715	V
at $I_F = 1 \text{ mA}$		0.855	
at $I_F = 10 \text{ mA}$		1	
at $I_F = 50 \text{ mA}$		1.25	
Reverse Current	I_R	30	nA
at $V_R = 25 \text{ V}$		1	μA
at $V_R = 75 \text{ V}$		30	μA
at $V_R = 25 \text{ V}, T_j = 150^\circ\text{C}$		50	μA
at $V_R = 75 \text{ V}, T_j = 150^\circ\text{C}$			
Diode Capacitance	C_d	1.5	pF
at $V_R = 0, f = 1 \text{ MHz}$			
Reverse Recovery Time	t_{rr}	4	ns
at $I_F = I_R = 10 \text{ mA}, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$			

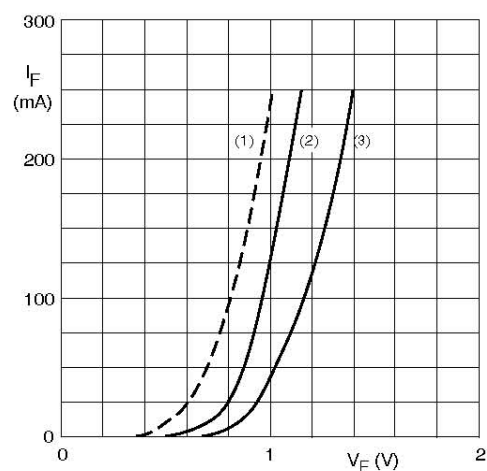
SWITCHING DIODE

Typical Characteristics



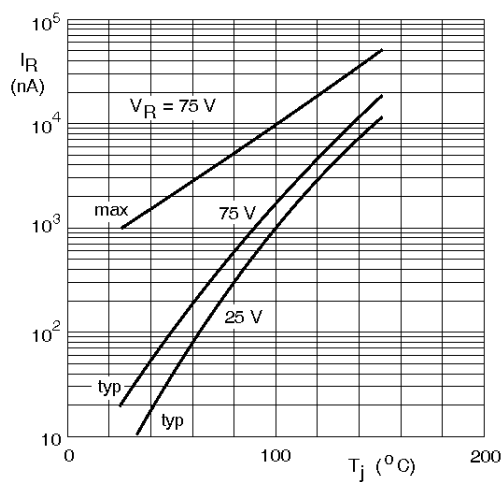
Device mounted on an FR4 printed-circuit board.

Maximum permissible continuous forward current as a function of ambient temperature.

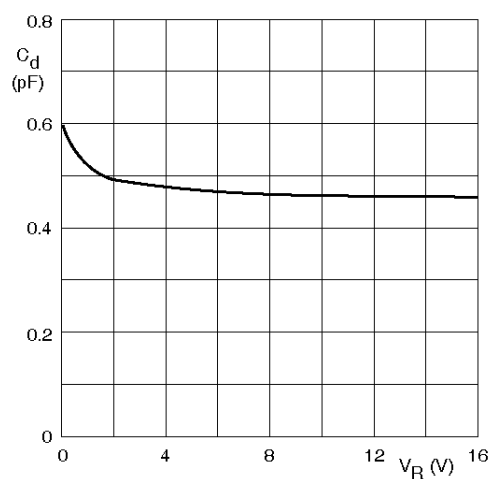


- (1) $T_j = 150^{\circ}$ C; typical values.
- (2) $T_j = 25^{\circ}$ C; typical values.
- (3) $T_j = 25^{\circ}$ C; maximum values.

Forward current as a function of forward voltage.

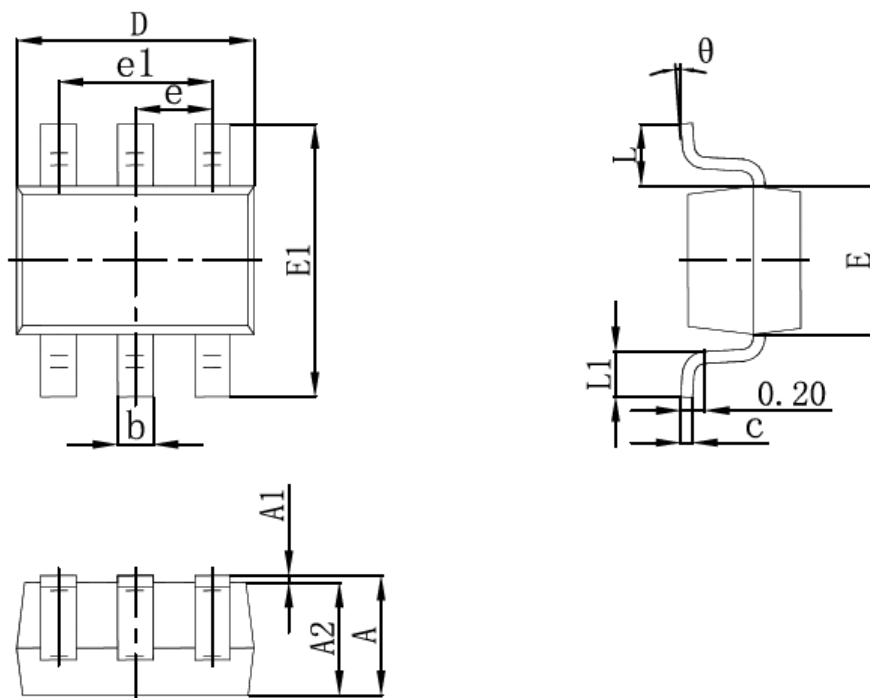


Reverse current as a function of junction temperature.

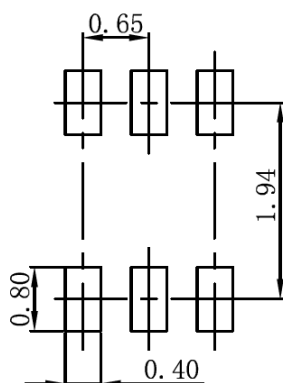


$f = 1$ MHz; $T_j = 25^{\circ}$ C.

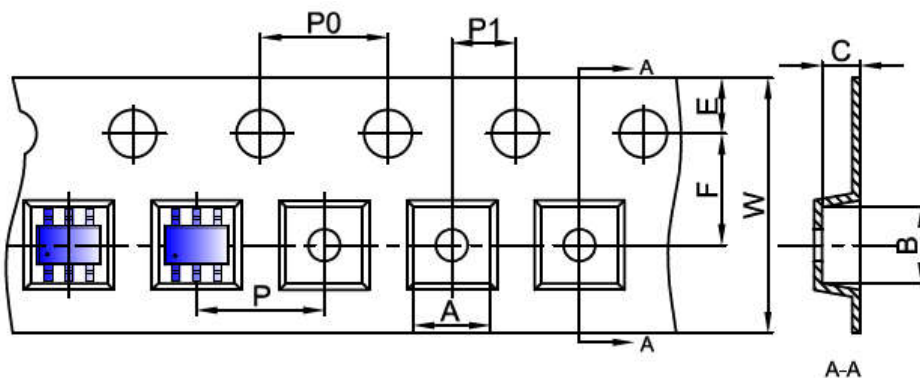
Diode capacitance as a function of reverse voltage; typical values.

SWITCHING DIODE
SOT-363 Package Outline Dimensions


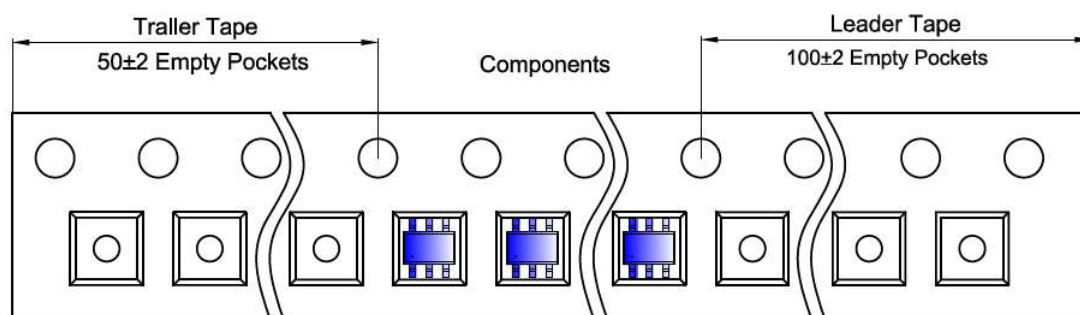
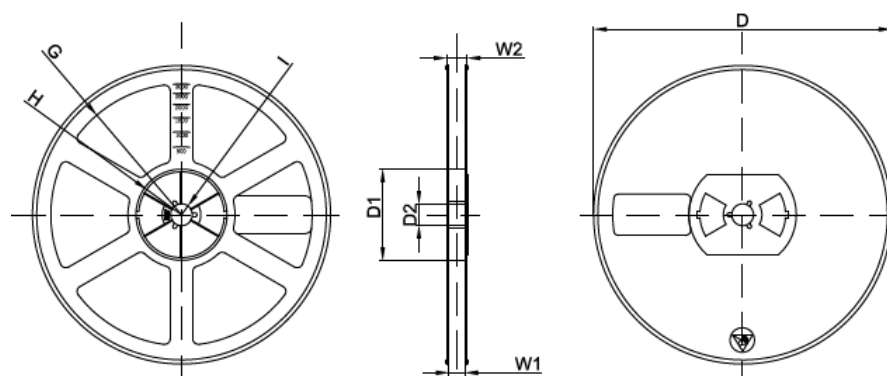
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.100	0.150	0.004	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.400	0.085	0.094
e	0.650 TYP		0.026 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
θ	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

SWITCHING DIODE
SOT-363 Tape and Reel
SOT-363 Embossed Carrier Tape


DIMENSIONS ARE IN MILLIMETER										
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	54.40	13.00	R78	R25.60	R6.50	9.50	12.30