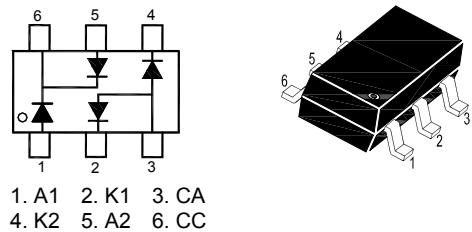


## ■ Silicon Epitaxial Planar Switching Diode

### ■ Features

- High speed
- High switching speed



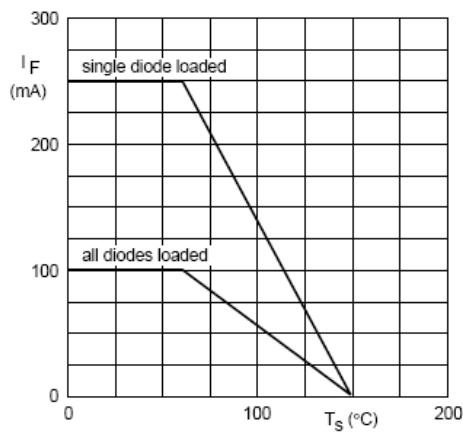
■ Simplified outline(SOT-363)

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

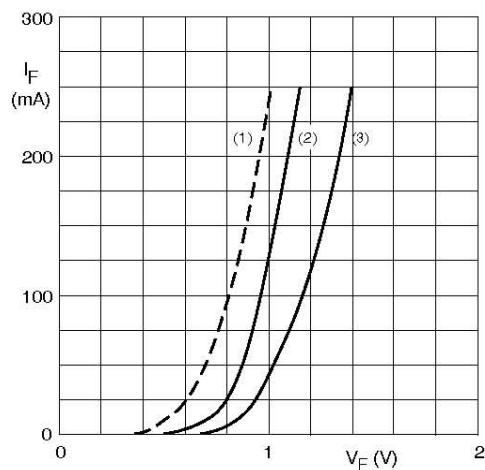
Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	90	V
Reverse Voltage	$V_R$	90	V
Continuous Forward Current Single Diode Loaded All Diodes Loaded	$I_F$	250 100	mA
Repetitive Peak Forward Current	$I_{FRM}$	500	mA
Non-Repetitive Peak Forward Surge Current at $t = 1 \mu\text{s}$ at $t = 1 \text{ ms}$ at $t = 1 \text{ s}$	$I_{FSM}$	4 1 0.5	A
Total Power Dissipation	$P_{tot}$	350	mW
Junction Temperature	$T_j$	- 65 to + 150	°C
Storage Temperature Range	$T_{stg}$	- 65 to + 150	°C

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

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 1 \text{ mA}$ at $I_F = 10 \text{ mA}$ at $I_F = 50 \text{ mA}$ at $I_F = 150 \text{ mA}$	$V_F$	0.715 0.855 1 1.25	V
Reverse Current at $V_R = 25 \text{ V}$ at $V_R = 80 \text{ V}$ at $V_R = 25 \text{ V}, T_j = 150^\circ\text{C}$ at $V_R = 80 \text{ V}, T_j = 150^\circ\text{C}$	$I_R$	30 0.5 30 150	nA μA μA μA
Diode Capacitance at $V_R = 0, f = 1 \text{ MHz}$	$C_d$	2	pF
Reverse Recovery Time at $I_F = I_R = 10 \text{ mA}, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$	$t_{rr}$	4	ns



Maximum permissible continuous forward current as a function of soldering point temperature.

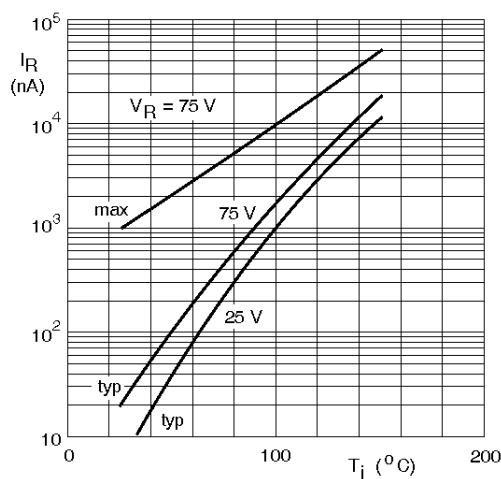


(1)  $T_j = 150 \text{ }^\circ\text{C}$ ; typical values.

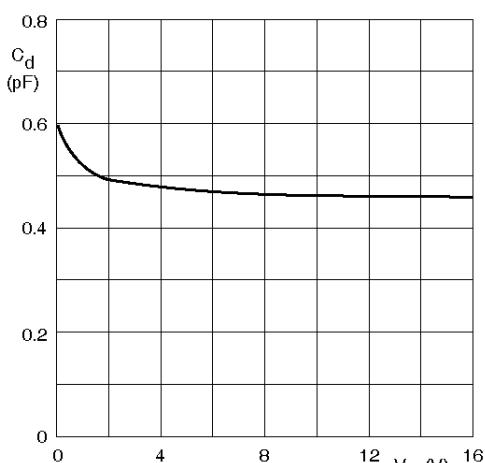
(2)  $T_j = 25 \text{ }^\circ\text{C}$ ; typical values.

(3)  $T_j = 25 \text{ }^\circ\text{C}$ ; maximum values.

Forward current as a function of forward voltage.



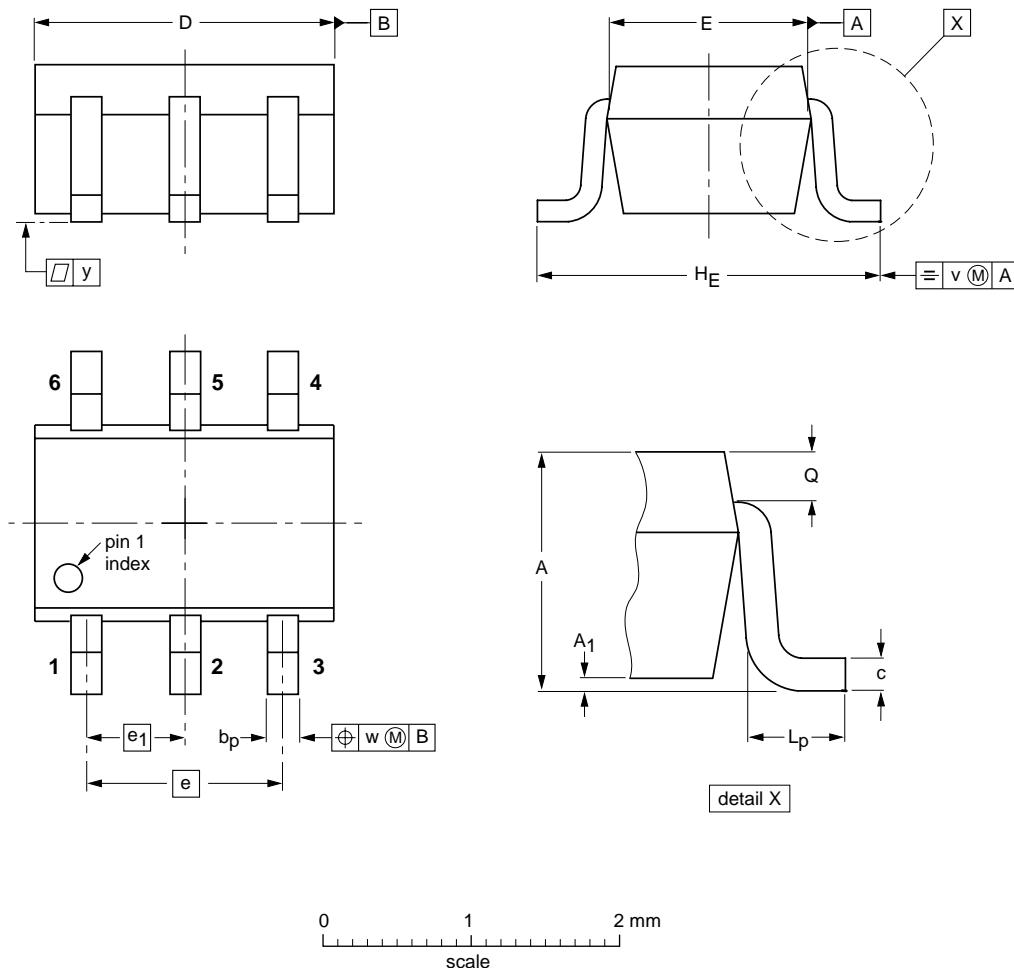
Reverse current as a function of junction temperature.



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

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

Package Outline      SOT-363



DIMENSIONS (mm are the original dimensions)

UNIT	A	$A_1$ max	$b_p$	c	D	E	e	$e_1$	$H_E$	$L_p$	Q	v	w	y
mm	1.1 0.8	0.1	0.30 0.20	0.25 0.10	2.2 1.8	1.35 1.15	1.3	0.65	2.2 2.0	0.45 0.15	0.25 0.15	0.2	0.2	0.1

Summary of Packing Options

Package	Package Description	Packing Quantity	Industry Standard
SOT-363	Tape/Reel,7"reel	3000	EIA-481-1