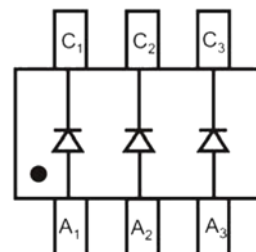
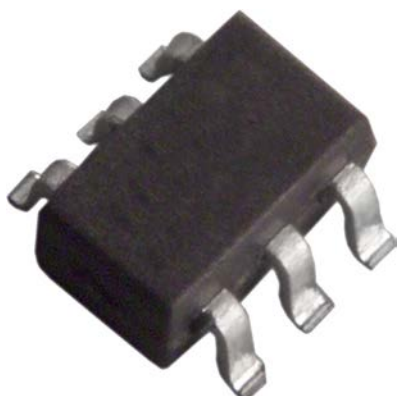


# Surface Mount Fast Switching Diode



SOT-363

## Features:

- Fast Switching Speed
- For General Purpose Switching Application
- Ultra-Small Surface Mount Package
- High Conductance

## Applications:

- For general purpose switching application

## Maximum Ratings:

$T_A = 25^\circ\text{C}$  unless otherwise specified.

Characteristic	Symbol	Value	Unit
Non-repetitive peak reverse Voltage	$V_{RM}$	100	V
Peak repetitive reverse Voltage Working peak reverse voltage DC reverse voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	75	V
Forward continuous current	$I_{FM}$	300	mA
Average rectified output current	$I_O$	150	mA
Non-Repetitive peak forward surge current at $t=1\mu\text{s}$ at $t=1\text{s}$	$I_{FSM}$	2 1	A
Power dissipation	$P_D$	200	mW
Thermal resistance, junction to ambient	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Junction and storage temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$

# Surface Mount Fast Switching Diode



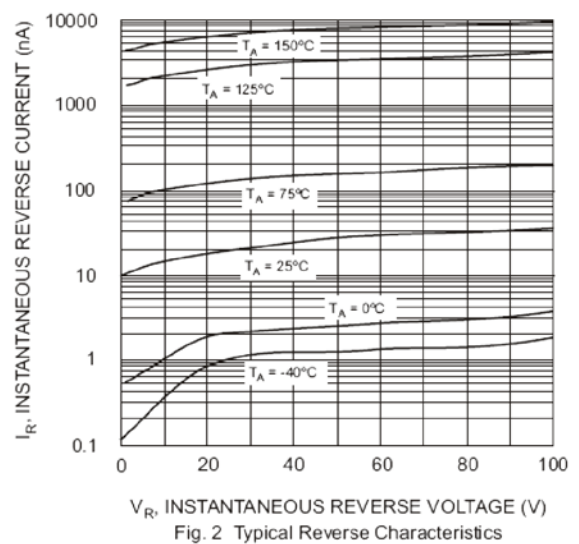
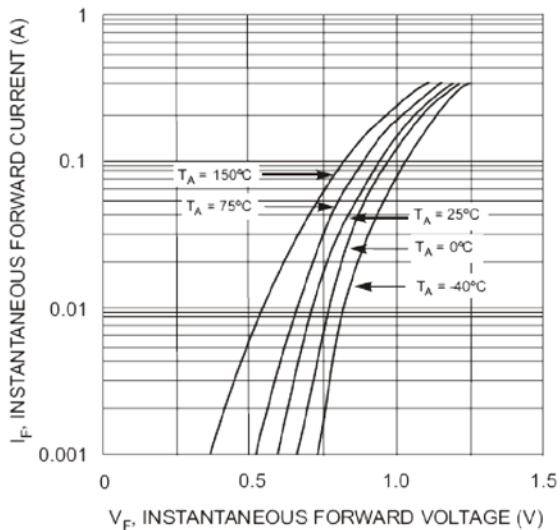
## Electrical Characteristics:

$T_A=25^\circ\text{C}$  unless otherwise specified.

Parameter	Symbol	Test conditions	Min.	Max.	Unit
Reverse breakdown voltage	$V_{(BR)R}$	$I_R=1\mu\text{A}$	75	-	V
Forward voltage	$V_F$	$I_F=1\text{mA}$ $I_F=10\text{mA}$ $I_F=50\text{mA}$ $I_F=150\text{mA}$	-	0.715 0.855 1 1.25	V
Total Capacitance	$C_T$	$V_{CB}=10\text{V}$ , $f=1\text{MHz}$ , $I_E=0$	-	2	pF
Reverse Recovery time	$t_{rr}$	$I_F=I_R=10\text{mA}$ , $I_{rr}=0.1 \times I_R$ , $R_L=100\Omega$	-	4	ns

## Typical Characteristics:

$T_A = 25^\circ\text{C}$  unless otherwise specified.



# Surface Mount Fast Switching Diode

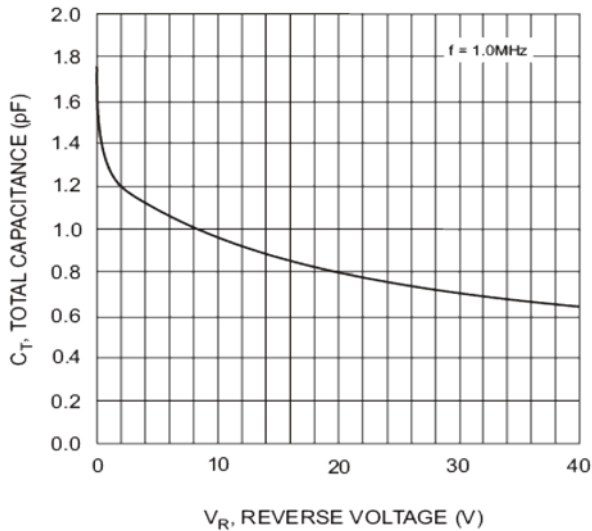


Fig. 3 Typical Capacitance vs. Reverse Voltage

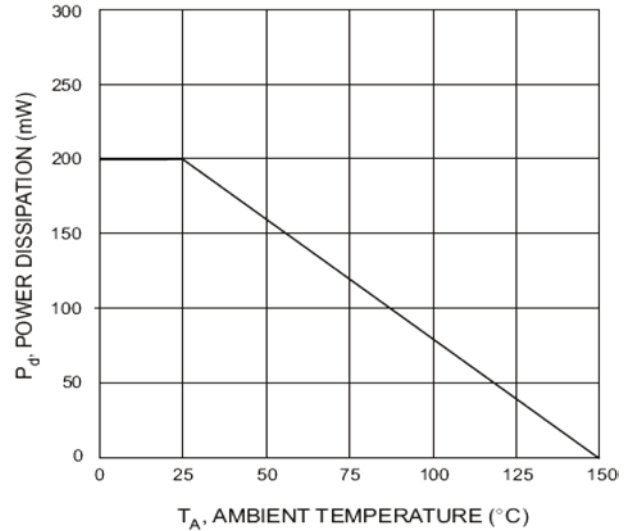
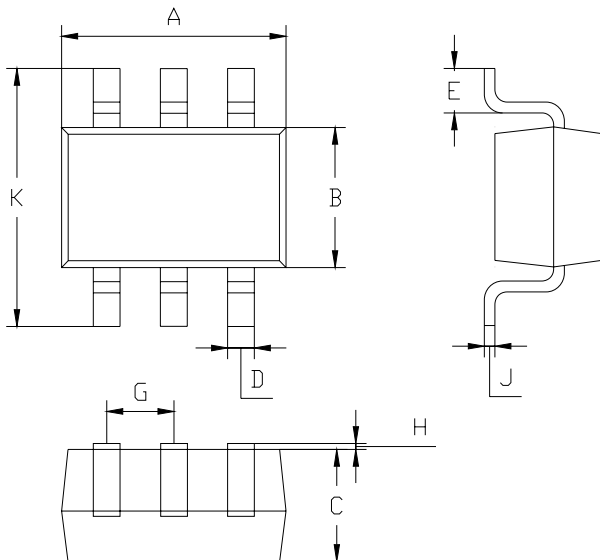


Fig. 4 Power Derating Curve

## Package Outline:

Plastic surface mounted package



SOT-363		
Dim.	Min.	Max.
A	1.8	2.2
B	1.15	1.35
C	1 Typ.	
D	0.1	0.3
E	0.25	0.4
G	0.65 Typ.	
H	0.02	0.1
J	0.1 Typ.	
K	2.1	2.3

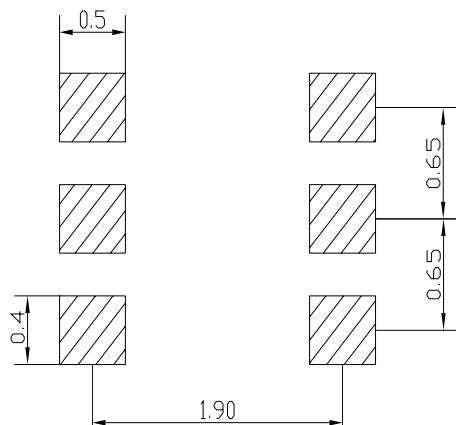
Dimensions : Millimetres



# Surface Mount Fast Switching Diode



## Soldering Footprint:



Dimensions : Millimetres

## Package Information:

Device	Package	Shipping
BAS16TW-7-F	SOT-363	3,000 / Tape & Reel

## Part Number Table

Description	Part Number
Surface Mount Fast Switching Diode	BAS16TW-7-F

**Important Notice :** This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2012.

[www.element14.com](http://www.element14.com)  
[www.farnell.com](http://www.farnell.com)  
[www.newark.com](http://www.newark.com)

