

## FEATURES

- | Low Forward Voltage Drop

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- | Peak reverse voltage: 30V

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- | Low reverse leakage

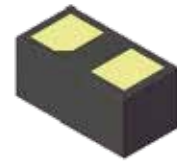
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- | Fast reverse recovery : ns level

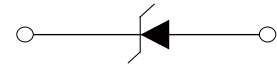
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- | High reliability

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DFN0603



Schematic Symbol

## APPLICATION

- | Reverse protection Diode

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- | Switching Diode

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- | Clamping protection

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## APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

## MAXIMUM RATINGS (T<sub>A</sub>=25°C )

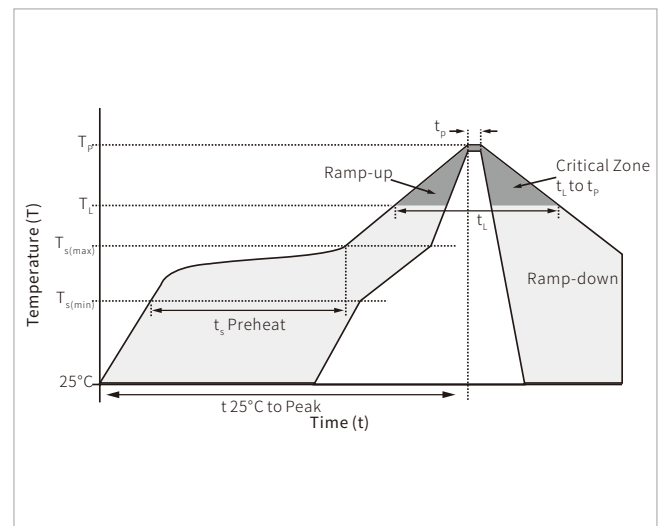
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V <sub>RM</sub>	30	V
Average rectified forward current	I <sub>FO</sub>	100	mA
Junction Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STG</sub>	-40 to +125	°C

## ELECTRICAL CHARACTERISTICS ( $T_A=25^{\circ}\text{C}$ )

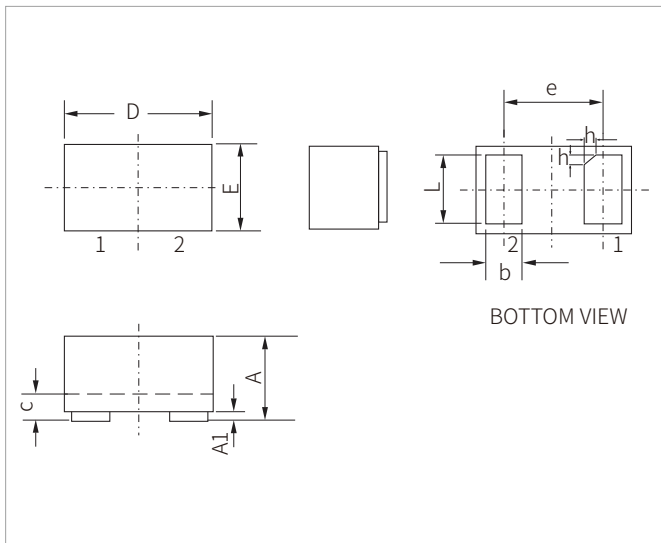
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	$V_R$	$I_R=50\mu\text{A}$	30			V
Reverse Current	$I_R$	$V_R=10\text{V}$			0.3	$\mu\text{A}$
		$V_R=30\text{V}$			20	
Forward Voltage	$V_F$	$I_F=10\text{mA}$		0.40	0.45	V
		$I_F=100\text{mA}$		0.5	0.65	

## SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ( $T_{s(\text{min})}$ )	150°C
	Temperature Max ( $T_{s(\text{max})}$ )	200°C
	Time (min to max) ( $t_s$ )	60 – 180 secs
Average ramp up rate (Liquidus Temp ( $T_L$ ) to peak)		3°C/second max
$T_{s(\text{max})}$ to $T_L$ - Ramp-up Rate		3°C/second max
Reflow	Temperature ( $T_L$ ) (Liquidus)	217°C
	Time (min to max) ( $t_L$ )	60 – 150 seconds
Peak Temperature ( $T_p$ )		260°C
Time within 5°C of actual peak Temperature ( $t_p$ )		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature ( $T_p$ )		8 minutes max.
Do not exceed		260°C

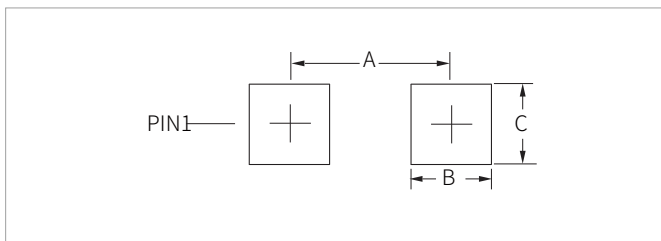


## DFN0603 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.28	0.36	0.011	0.014
A1	0	0.05	0	0.002
b	0.13	0.24	0.005	0.009
c	0.05	0.15	0.002	0.006
D	0.55	0.70	0.022	0.028
e	0.35BSC		0.014BSC	
E	0.25	0.35	0.010	0.014
L	0.20	0.30	0.008	0.012
h	0	0.10	0	0.004

## RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters	Inches
A	0.38	0.015
B	0.23	0.009
C	0.30	0.012

## ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SBD0130V06	DFN0603	10000PCS	7"

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