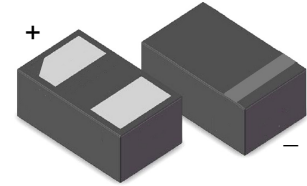


Features

- Forward current ($I_o=100\text{mA}$)
- Low reverse current
- Low forward voltage drop
- Leadless ultra small SMD plastic package

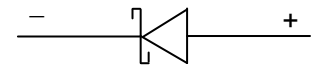


DFN0603-X4



Applications

- Low voltage rectification
- High efficiency DC-to-DC conversion
- Switch Mode Power Supply (SMPS)
- Reverse polarity protection
- Low power consumption applications



Schematic Diagram

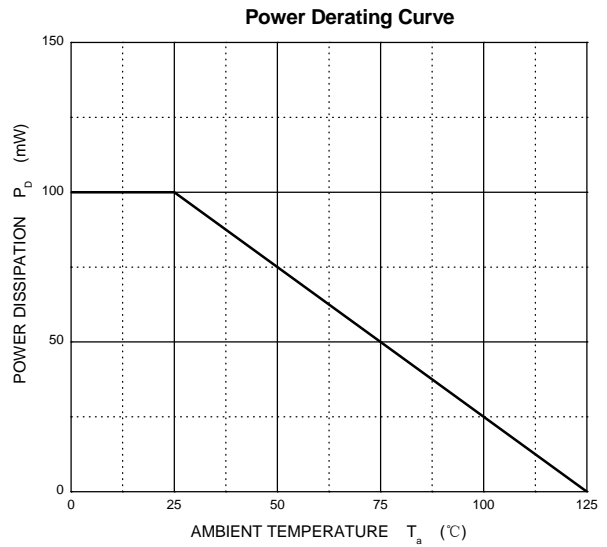
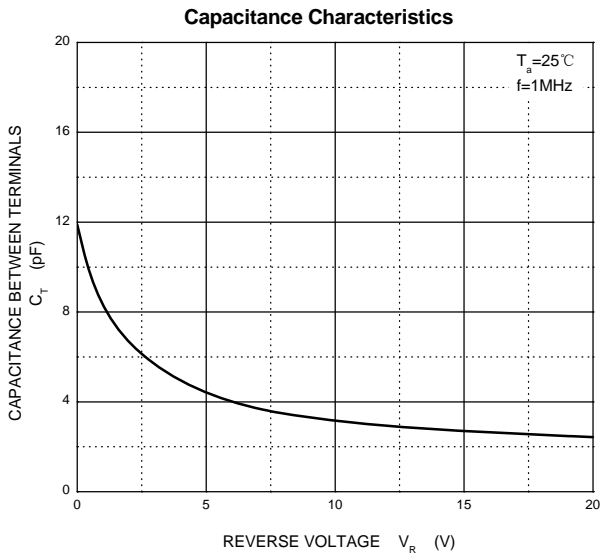
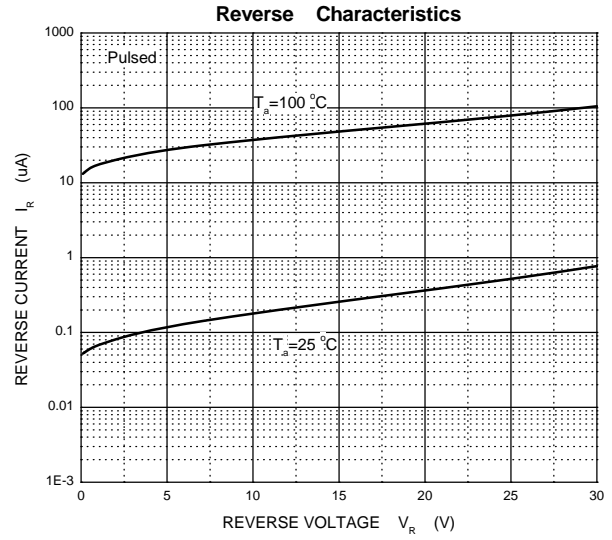
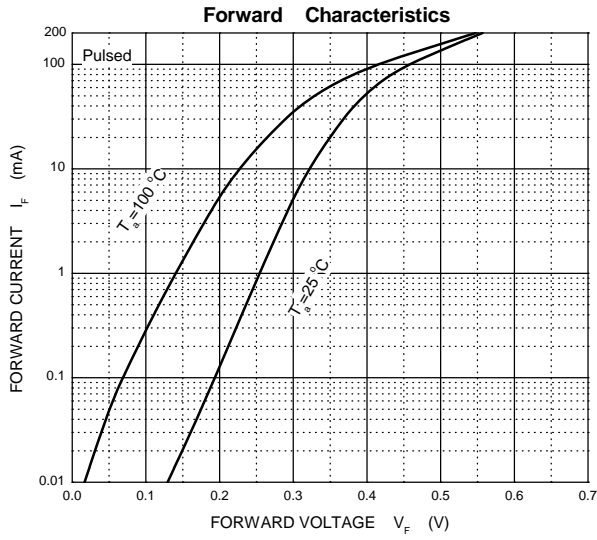
Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Working Peak Reverse Voltage	V_{RWM}		
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Forward Continuous Current	I_F	100	mA
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	0.5	A
Power Dissipation	P_D	100	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	1000	$^\circ\text{C/W}$
Junction Temperature	T_J	125	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 to +150	$^\circ\text{C}$

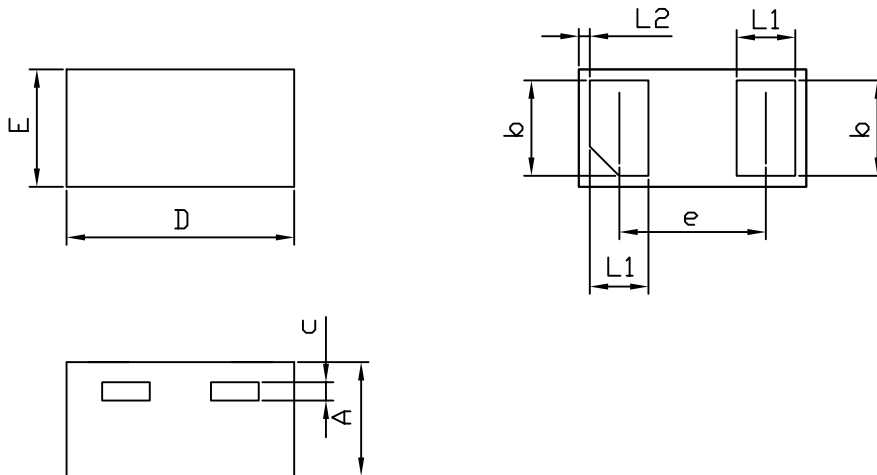
Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=50\mu\text{A}$	30	-	-	V
Reverse Current	I_R	$V_R=10\text{V}$	-	-	10	μA
		$V_R=30\text{V}$	-	-	50	μA
Forward Voltage	V_F	$I_F=10\text{mA}$	-	-	0.38	V
		$I_F=100\text{mA}$	-	-	0.60	V

Typical Characteristics Curves

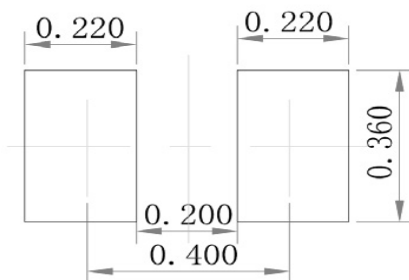


Package Outline Dimensions DFN0603-X4



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.275	0.340	0.011	0.013
D	0.570	0.670	0.022	0.026
E	0.270	0.370	0.011	0.015
b	0.225	0.295	0.009	0.012
c	0.050 REF.		0.002 REF.	
e	0.365	0.435	0.014	0.017
L1	0.125	0.195	0.005	0.008
L2	0.030 REF.		0.001 REF.	

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.050 mm.
3. The pad layout is for reference purposes only.

Marking and Ordering Information

Device	Package	Marking	Quantity	HSF Status
SPRB521F-30	DFN0603	F	10,000 pcs / Reel	RoHS Compliant