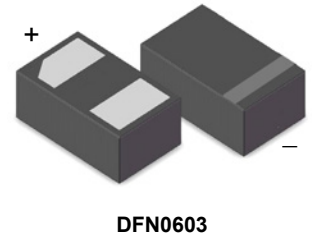


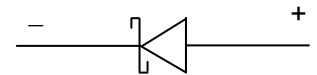
## Features

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



## 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
Reverse Voltage (repetitive peak)	$V_{RM}$	30	V
Reverse Voltage (DC)	$V_R$	30	V
Average Rectified Forward Current	$I_F$	100	mA
Peak Forward Surge Current (8.3ms Single Sine Pulse)	$I_{FSM}$	3	A
ESD Rating	Human Body Model	>8.0	kV
	Machine Model	>300	V
Thermal Resistance Junction to Ambient <sup>1</sup>	$R_{\theta(JA)}$	500	$^\circ\text{C/W}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Operating Temperature	$T_{OPR}$	-40 To +150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-40 To +150	$^\circ\text{C}$

Note1: Mounted on a 1inch<sup>2</sup> FR-4 board with 1oz Copper, operating to steady state.

## Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V <sub>R</sub>	I <sub>R</sub> =100μA	30	-	-	V
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1mA	-	-	0.36	V
		I <sub>F</sub> =10mA	-	0.4	0.44	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =10V	-	-	0.3	μA
		V <sub>R</sub> =30V	-	-	0.5	μA
Junction Capacitance	C <sub>J</sub>	F=1MHZ, V <sub>R</sub> =5V	-	7	-	pF

## Typical Characteristics Curves (T<sub>A</sub>=25°C unless otherwise noted)

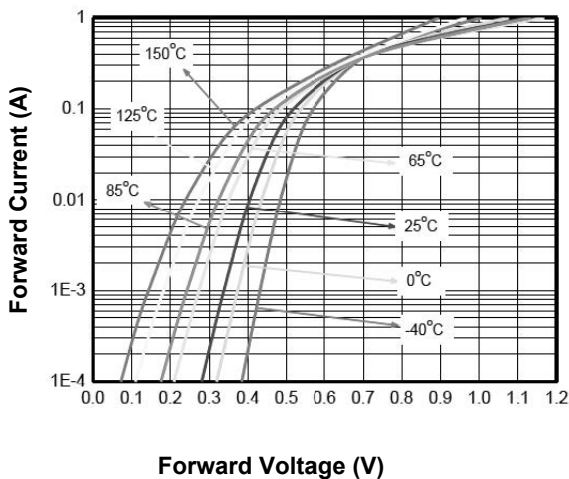


Figure 1. Forward Voltage vs. Forward Current

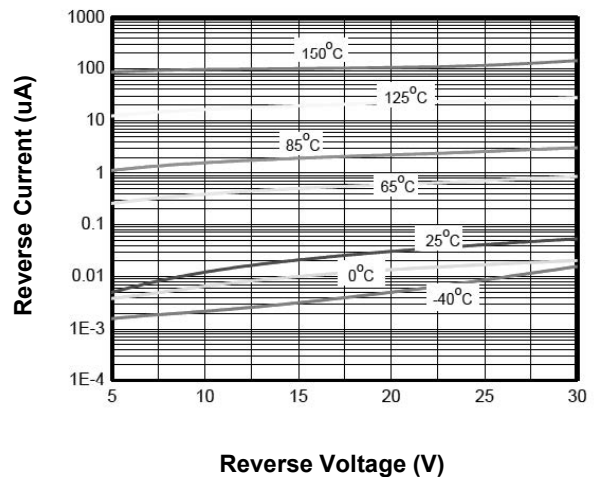


Figure 2. Reverse Current vs. Reverse Voltage

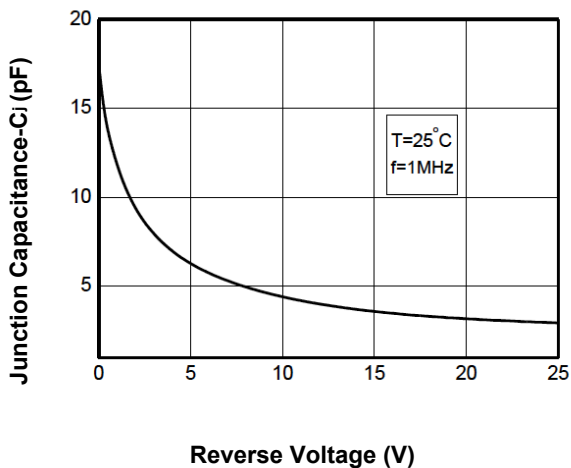
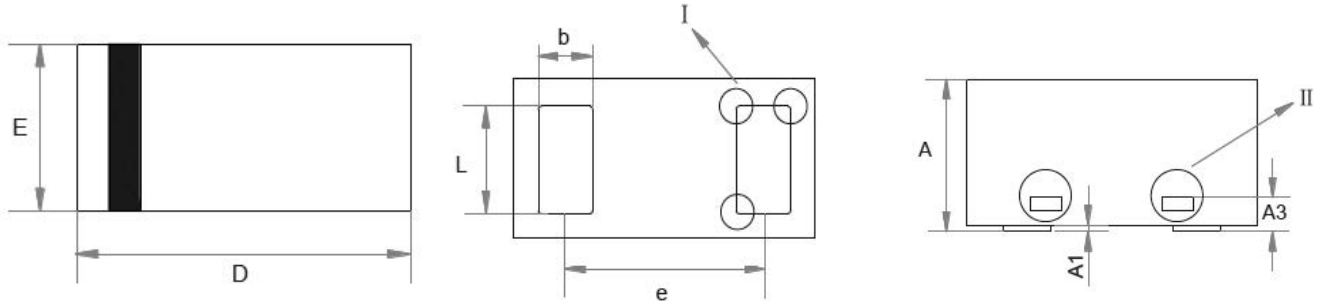


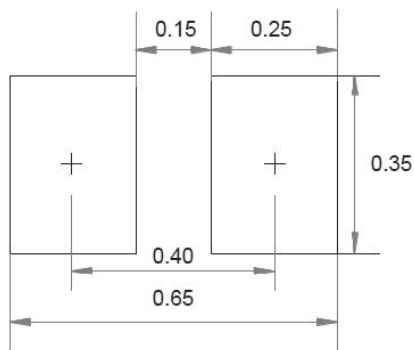
Figure 3. Junction Capacitance vs. Reverse Voltage

**Package Outline Dimensions(DFN0603-X5)**



Symbol	Dimensions in Millimeters		
	Min.	Typ.	Max.
A	0.23	0.30	0.34
A1	0.00	0.03	0.05
A3	0.10 Ref.		
D	0.55	0.60	0.67
E	0.25	0.30	0.37
b	0.10	0.15	0.20
L	0.20	0.24	0.30
e	0.40 Ref		

**Suggested Pad Layout (unit:mm)**



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

**Marking and Ordering Information**

Device	Package	Marking	Quantity	HSF Status
GSRB525F-30	DFN0603	xH (x=DC)	10000pcs / Reel	RoHS/HF Compliant