

SCHOTTKY BARRIER DIODE



General description

General Application Schottky barrier rectifier, encapsulated in a DFN1006-2L leadless ultra small Surface-Mounted Device (SMD) plastic package.

Features and benefits

- Average forward current: $I_{F(AV)} \leq 200 \text{ mA}$
- Reverse voltage: $V_R \leq 40 \text{ V}$
- Low forward voltage: $V_F \leq 350 \text{ mV @10mA}$
- Low reverse current: $I_R \leq 5.0 \mu\text{A @40V}$
- Leadless ultra small SMD plastic package
- We declare that the material of product compliance with RoHS requirements and Halogen Free

Application information

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

Ordering information

Device	Package	Marking	Packaging
RB521BS-40	DFN1006-2L	F	10000/Tape & Reel

Schematic & Pin configuration

Simplified outline	Graphic symbol

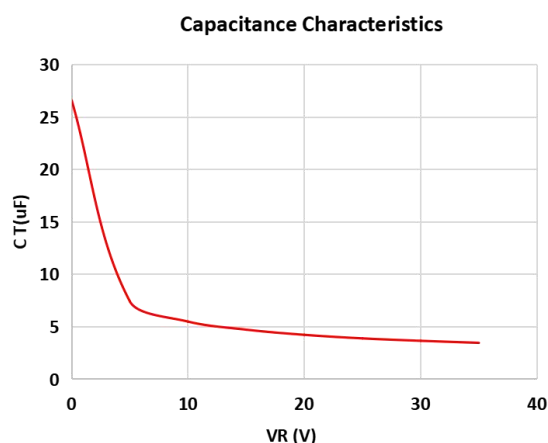
Maximum Ratings ($T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

Parameter	Symbol	Value	Unit
DC reverse voltage	V_R	40	V
Average rectified forward current	I_O	200	mA
Forward current surge peak(60Hz•1cyc)	I_{FSM}	500	mA
Junction temperature	T_j	125	$^{\circ}\text{C}$
Storage temperature	T_{stg}	-40 to +125	$^{\circ}\text{C}$

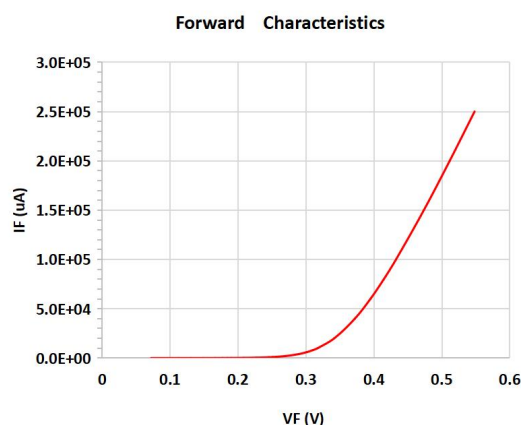
Electrical Characteristics ($T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Condition
Forward voltage	V_F	--	0.32	0.35	V	($I_F=10\text{mA}$)
		--	0.34	0.40		($I_F=20\text{mA}$)
		--	0.51	0.55		($I_F=200\text{mA}$)
Reverse current	I_R	--	0.2	1.0	μA	$V_R=10\text{V}$
		--	1.0	5.0	μA	$V_R=40\text{V}$
Capacitance between terminals	C_T	--	27	--	pF	$V_R=0\text{V}, f=1\text{MHz}$

Typical Characteristics ($T_A = 25\text{ }^{\circ}\text{C}$)



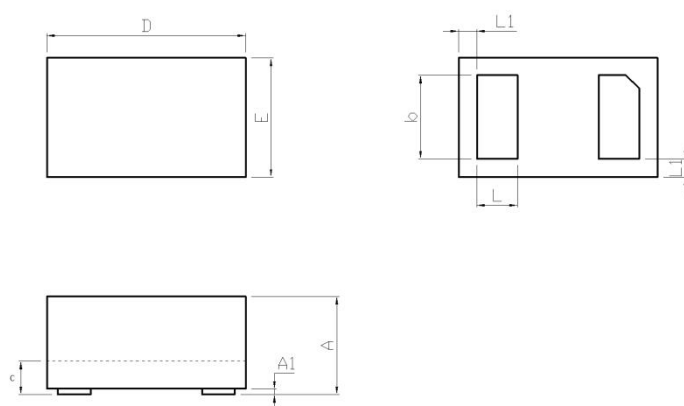
C_T VS V_R



I_F VS V_F

Package Outline Dimensions

DFN1006-2L



SYMBOL	Dimensions In Millimet	
	MIN	MAX
A	0.45	0.55
A1	0	0.05
b	0.45	0.55
c	0.1	0.14
D	0.95	1.05
E	0.55	0.65
L	0.18	0.32
L1	0.030	0.070