

B520N-30

Schottky Barrier Diode

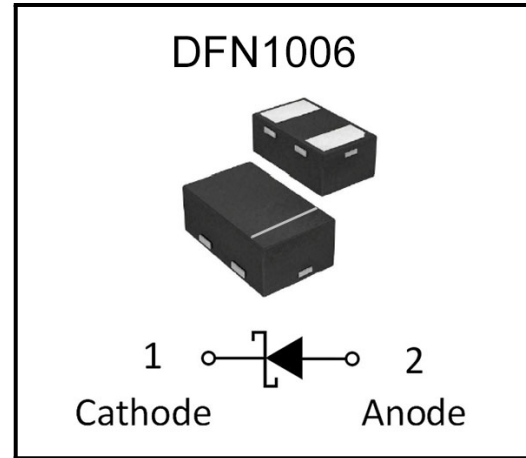
Features

- Low Forward voltage
- Extremely Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion Protection

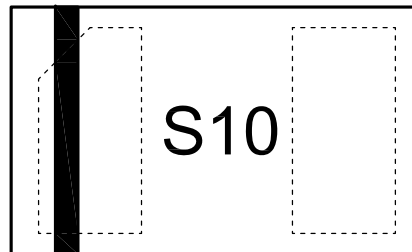
Mechanical Data

- DFN1006 package
- Molding compound flammability rating:UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEEEE Compliant

Package



Marking



Ordering information

Order code	Package	Base qty	Delivery mode
B520N-30	DFN1006	10K	Tape and reel

Maximum Ratings @T_A=25°C unless otherwise noted

Symbol	Parameter	Value	Unit
V _R	Reverse Voltage	30	V
P _D	Total Device Dissipation	150	mW
R _{θJA}	Thermal Resistance,Junction-to-Ambient	400	°C/W
T _L	Lead Soldering Temperature	260(10seconds)	°C
T _J	Junction Temperature	110	°C
T _{STG}	Storage Temperature	-40 to +150	°C

**BORN SEMICONDUCTOR , INC. ALL
RIGHT RESERVED**

Specifications are subject to change without notice.

Please refer to <http://www.born-tw.com> for current information. Revision: 2022-Jan-1-A



B520N-30

Schottky Barrier Diode

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

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_{BR}	Reverse Breakdown Voltage	$I_T=10\mu\text{A}$	30	—	—	V
V_F	Forward Voltage	$I_F=1\text{mA}$	—	0.30	0.45	V
		$I_F=20\text{mA}$	—	0.40	0.55	V
		$I_F=100\text{mA}$	—	0.45	0.6	V
		$I_F=200\text{mA}$	—	0.55	0.65	V
I_R	Reverse Leakage Current	$V_R = 10\text{V}, T=25^{\circ}\text{C}$	—	—	30	μA
C_J	Diode Capacitance	$V_R = 1.0\text{V}, f=1\text{MHZ}$	—	—	35	pF
T_{rr}	Reverse Reverse Time	$I_F = 10\text{mA}$ $I_F=0.1I_R, R_L=100\Omega$	—	—	5	nS



Typical Performance Characteristics($T_J = 25^\circ\text{C}$, unless otherwise noted)

Figure 1: Forward Characteristics

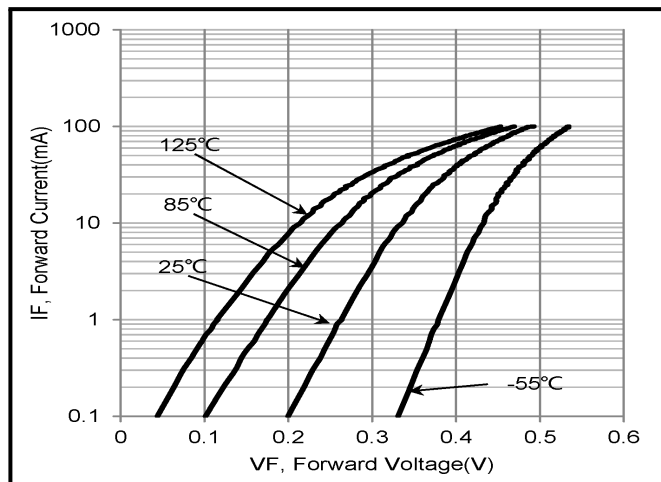


Figure 2: Reverse Characteristics

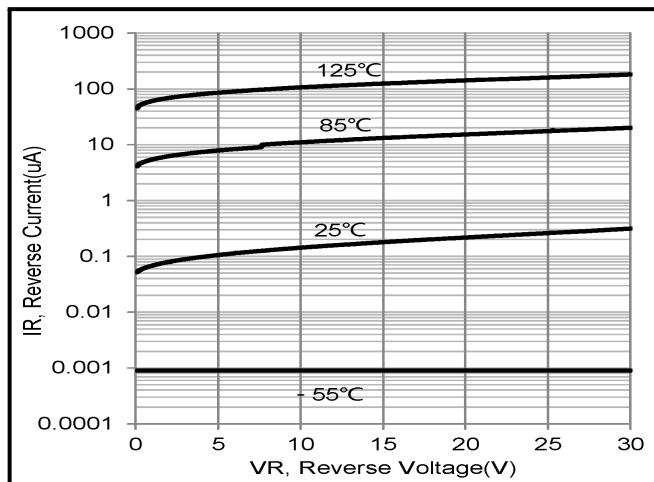
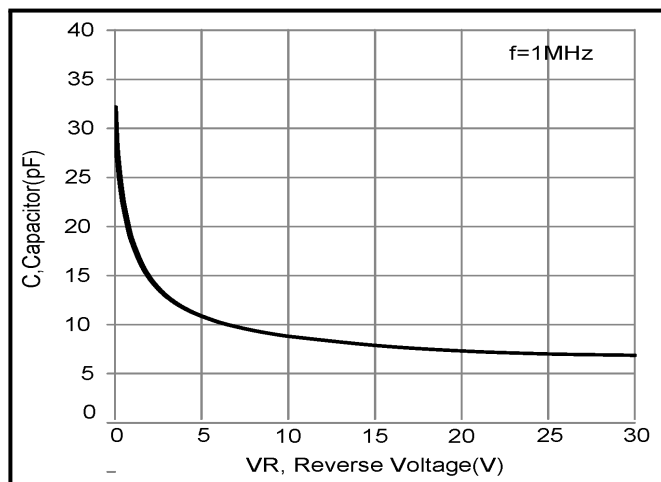


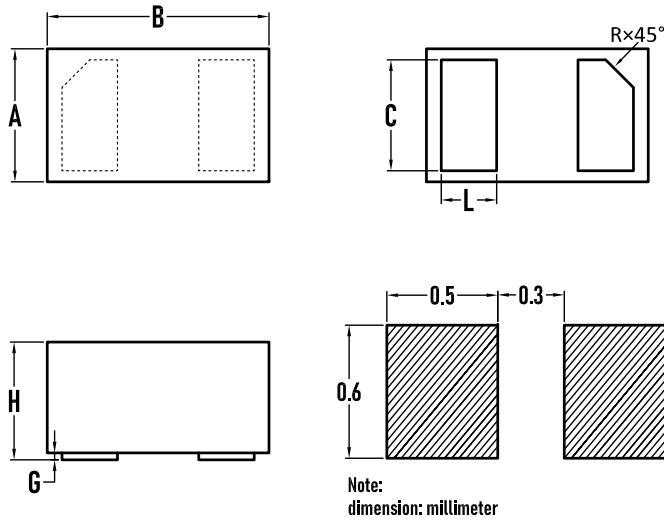
Figure 3: Capacitance Characteristics



B520N-30

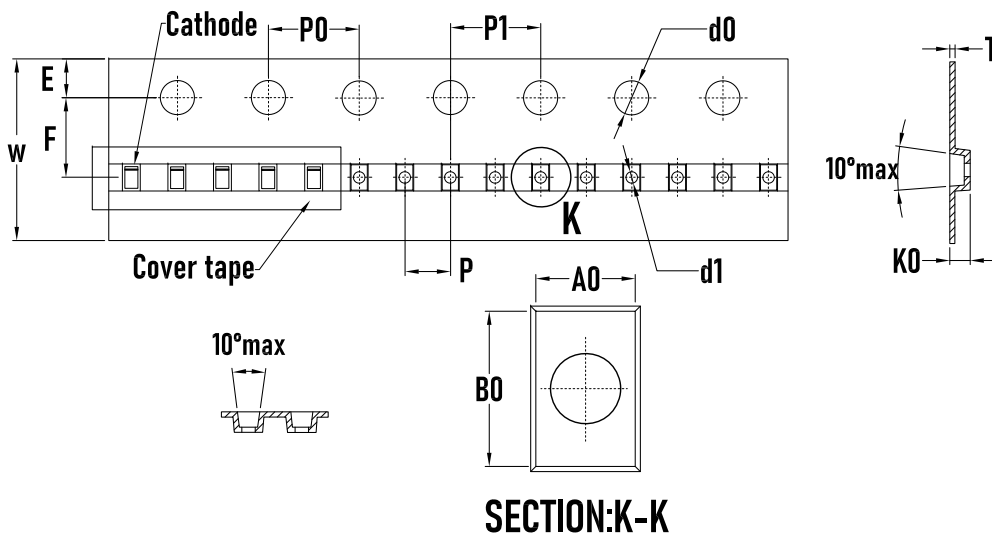
Schottky Barrier Diode

Outline Drawing - DFN1006



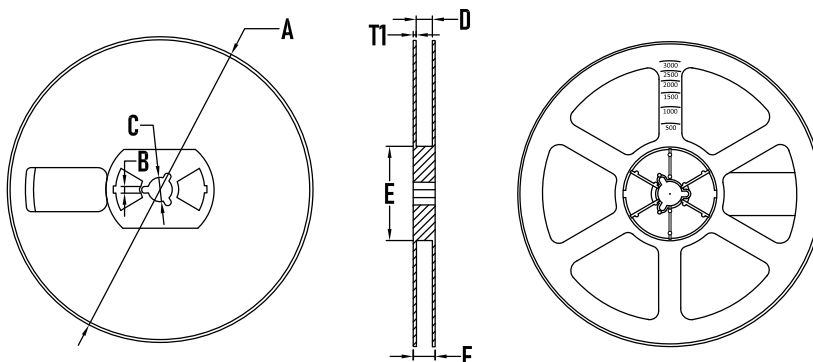
SYMBOL	MILLIMETER		
	MIN.	Typ.	MAX.
A	0.55	0.60	0.65
B	0.95	1.00	1.05
C	0.45	0.50	0.55
L	0.20	0.25	0.30
F	0.05REF		
G	0.00	0.02	0.05
H	0.45	0.50	0.55
R	0.07	0.12	0.17

Packaging Tape - DFN1006



SYMBOL	MILLIMETER
A0	0.71±0.05
B0	1.11±0.05
d0	1.5 ^{+0.1} ₋₀
d1	0.50±0.05
E	1.75±0.10
F	3.50±0.05
K0	0.56±0.05
P	2.00±0.05
P0	4.00±0.10
P1	2.00±0.05
W	8.00 ^{+0.03} _{-0.01}
T	0.2±0.015

Packaging Reel



SYMBOL	MILLIMETER
A	178±1
B	3.5±0.2
C	14.3±0.2
D	9.8 ⁺² ₋₁
E	54.5±0.5
F	12.4±0.2
T1	1.0±0.2
Quantity	10000PCS

**BORN SEMICONDUCTOR, INC. ALL
RIGHT RESERVED**

Specifications are subject to change without notice.

Please refer to <http://www.born-tw.com> for current information.

Revision: 2022-Jan-1-A

