BORN SEMICONDUCTOR

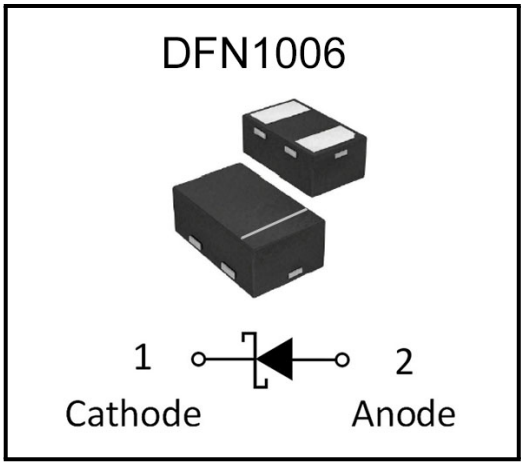
BSK1401

Schottky Barrier Diode

Features

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

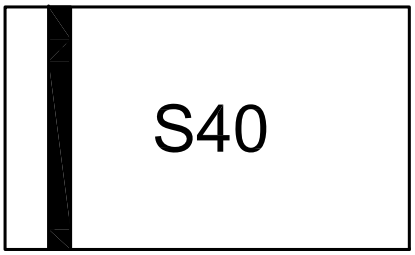
Package



Mechanical Data

- DFN1006 package
- Molding compound flammability rating:UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEEE Compliant
- AEC-Q101 qualified

Marking



Ordering information

Order code	Package	Base qty	Delivery mode
BSK1401	DFN1006	10K	Tape and reel

Maximum Ratings @T_A=25°C unless otherwise noted

Symbol	Parameter	Value	Unit
V_R	Reverse Voltage	40	V
$I_{F(AV)}$	Maximum average forward rectified current	200	mA
I_{FSM}	Non-repetitive peak forward surge current 8.3ms singlehalf sine-wave	800	mA
P_D	Total Device Dissipation	150	mW
$R_{\theta JA}$	Thermal Resistance,Junction-to-Ambient	400	°C/W
T_J	Junction Temperature	110	°C
T_{STG}	Storage Temperature	-55 to +150	°C

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BSK1401

Schottky Barrier Diode

Electrical Characteristics @T_A=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_{BR}	Reverse Breakdown Voltage	I_T=10uA	40	–	–	V
V_F	Forward Voltage	I_F=1mA	–	0.30	0.45	V
		I_F=20mA	–	0.40	0.55	V
		I_F=200mA	–	0.45	0.65	V
I_R	Reverse Leakage Current	V_R = 10V, T=25°C	–	–	30	uA
C_J	Diode Capacitance	V_R = 1.0V, f=1MHZ	–	–	35	pF
T_{rr}	Reverse Reverse Time	I_F = 10mA I_r=0.1I_R,R_L=100Ω	–	–	5	nS

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Schottky Barrier Diode

Typical Performance Characteristics(T_J = 25 °C, unless otherwise noted)

Figure 1: Forward Characteristics

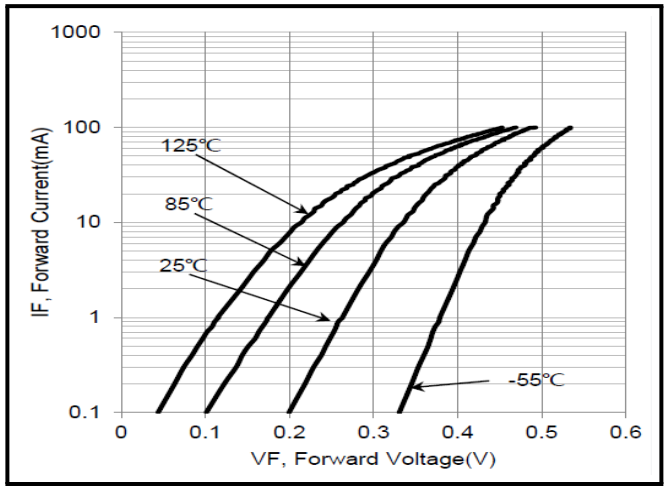


Figure 2: Reverse Characteristics

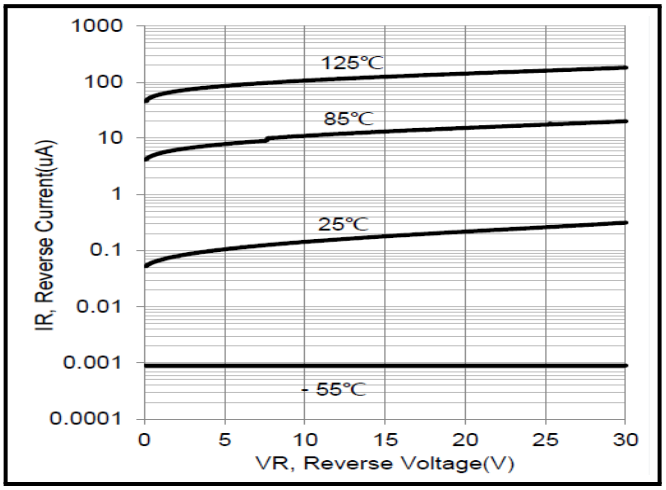
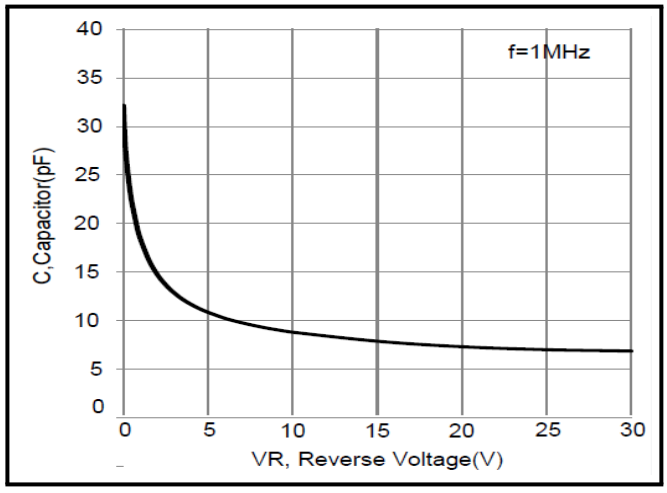


Figure 3: Capacitance Characteristics

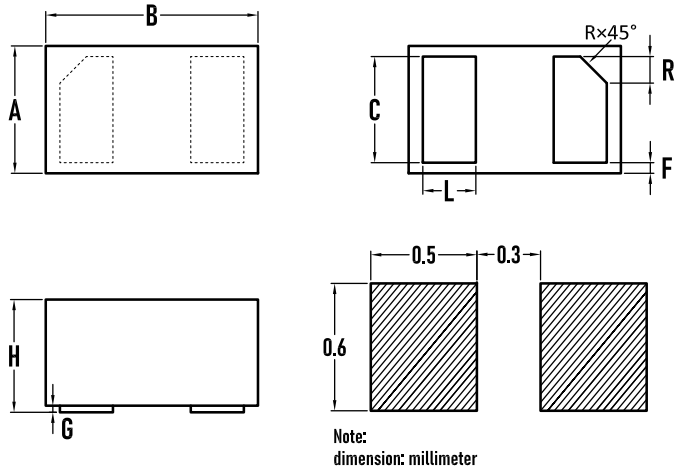


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BSK1401

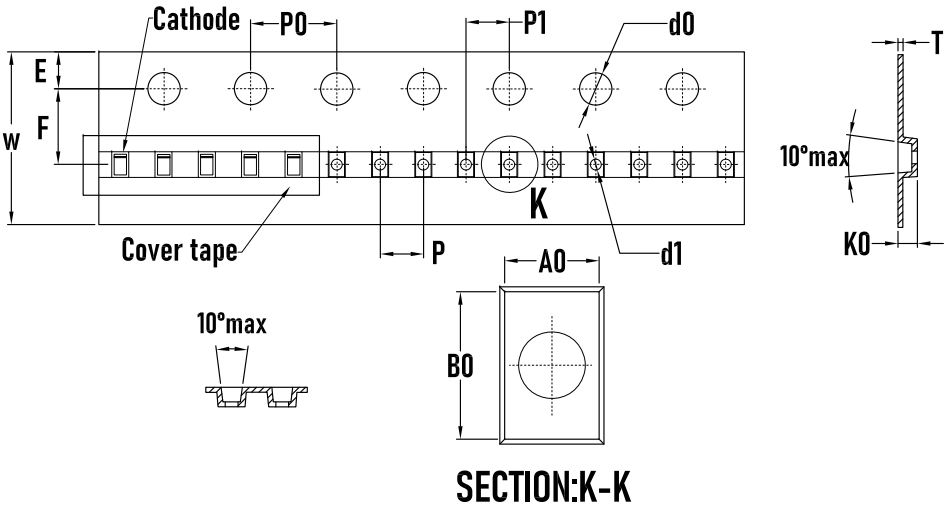
ESD Protection Diode

Outline Drawing – DFN1006



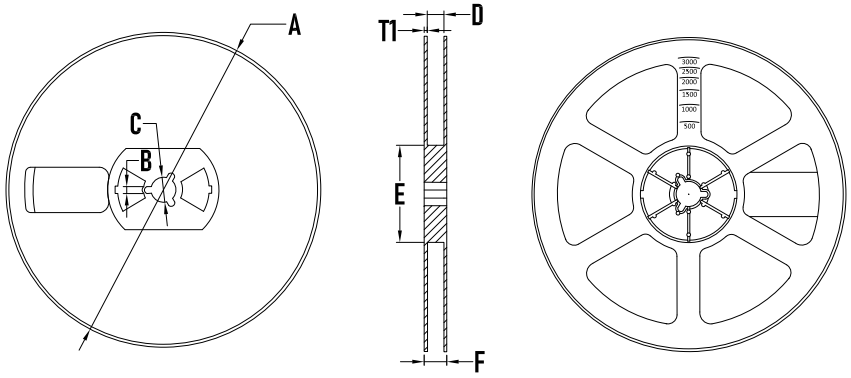
SYMBOL	MILLIMETER		
	MIN.	Typ.	MAX.
A	0.55	0.60	0.65
B	0.95	1.00	1.05
C	0.45	0.50	0.55
L	0.20	0.25	0.30
F		0.05REF	
G	0.00	0.02	0.05
H	0.45	0.50	0.55
R	0.07	0.12	0.17

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

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