

BN5A1V40

Schottky Barrier Diode

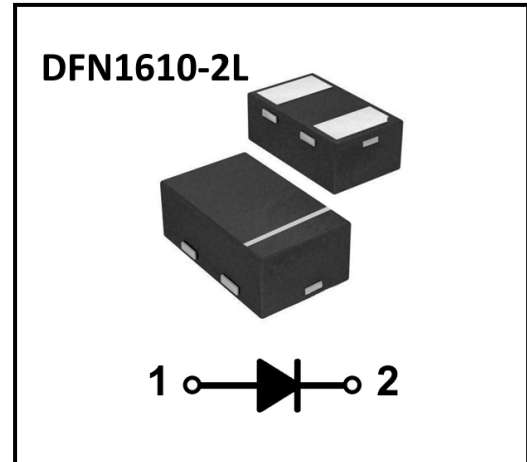
Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

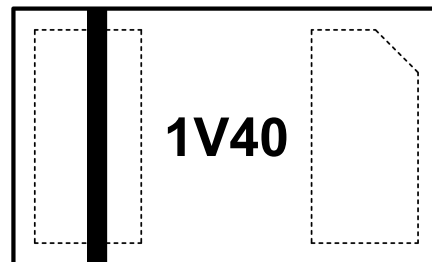
General Description

- Case: molded plastic
- Polarity: Color band denotes cathode
- Package: DFN1610 Plastic Package

Package



Marking



Ordering information

Order code	Package	Marking	Base qty	Delivery mode
BN5A1V40	DFN1610	1V40	3K	Tape and reel

Maximum Ratings (@T_A=25°C unless otherwise noted)

Symbol	Parameter	BN5A1V40	Unit
V _{RRM}	Maximum repetitive peak reverse voltage	40	V
V _{RMS}	Maximum RMS voltage	28	
V _{DC}	Maximum DC blocking voltage	40	
I _{FM}	Maximum average forward rectified current	1.0	A
I _{FSM}	Peak forward surge current 8.3 ms single half sine-wave	9	A
R _{θJA}	Typical thermal resistance	400	°C/ W
P _D	Power Dissipation	250	mW
T _j	Operating junction temperature	125	°C
T _{STG}	Storage temperature range	-50 to +150	

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Specifications are subject to change without notice.

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Electrical Characteristics(@T_A=25°C unless otherwise noted)

Symbol	Parameter	Test Condition	BN5A1V40	Unit
V _F	Maximum forward voltage	I _F =1.0A	0.60	V
		I _F =3.0A	0.90	
V _R	Maximum reverse breakdown voltage	I _R =1mA	40	V
I _R	Maximum reverse current	V _R = 40V	100	uA
C _j	Type junction capacitance	V _R = 4.0V, f=1MHZ	120	pF



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

Figure 1: Output Characteristics

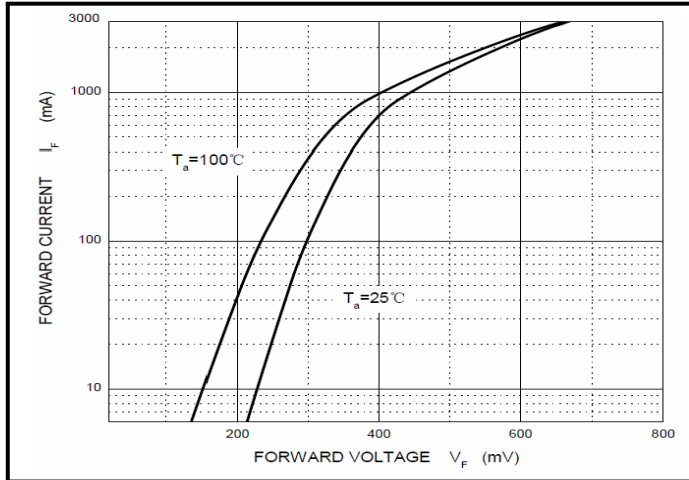


Figure 2: Transfer Characteristics

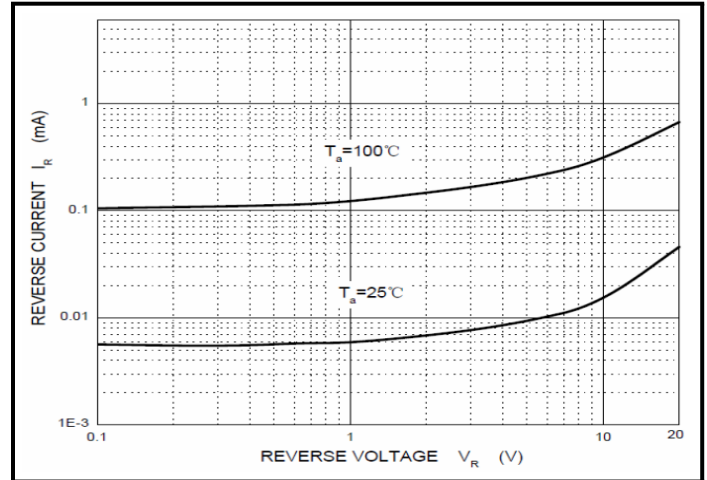


Figure 3: Capacitance Characteristics

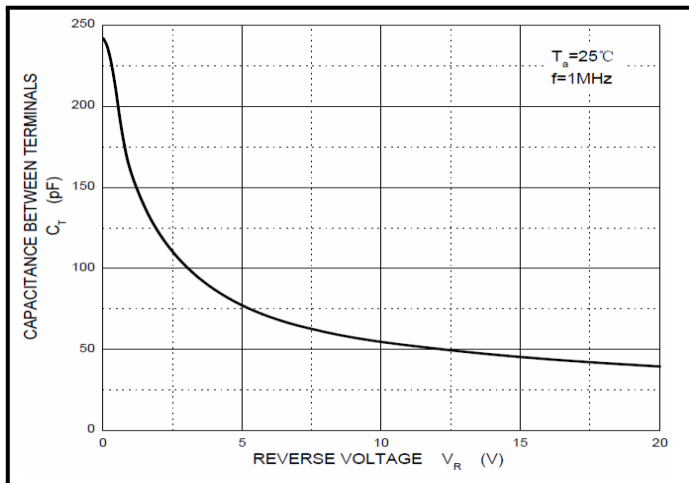
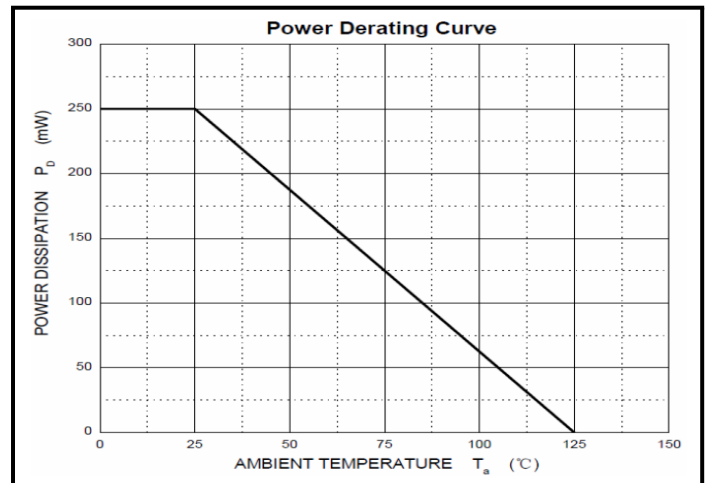


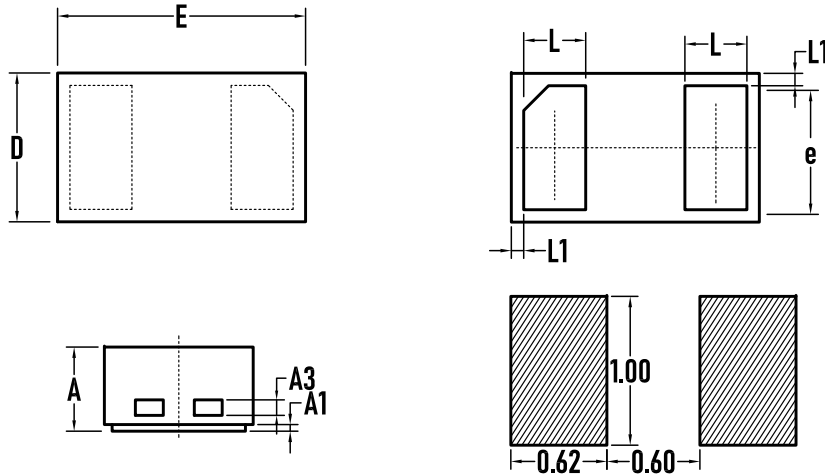
Figure 4: Power Derating Curve



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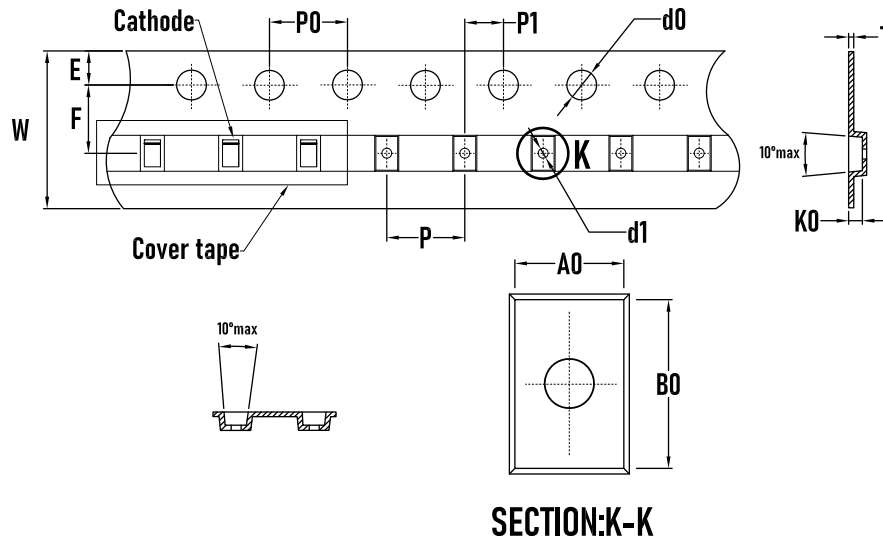
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Outline Drawing –DFN1610



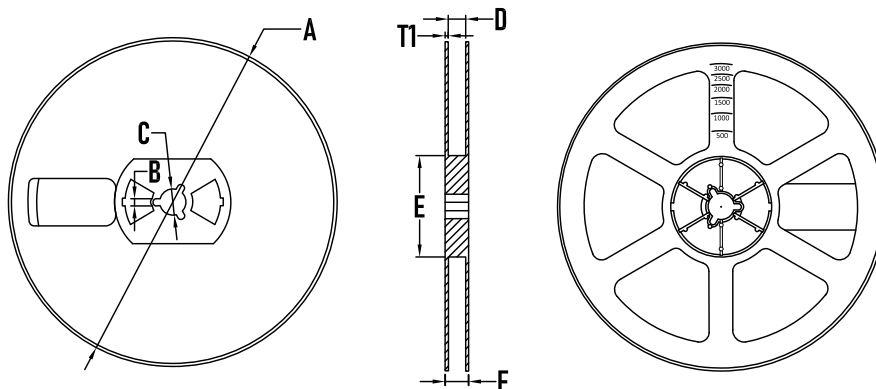
SYMBOL	MILLIMETER		
	MIN.	Typ.	MAX.
A	0.45	0.50	0.55
A1	–	0.02	0.05
A3	0.119	0.127	0.135
D	1.55	1.60	1.65
E	0.95	1.00	1.05
b	–	0.8	–
e	1.1039REF		
L	0.35	0.40	0.45
L1	0.05REF		

Packaging Tape - DFN1610



SYMBOL	MILLIMETER
A0	1.11±0.05
B0	1.72±0.05
d0	1.5 ^{+0.1} ₋₀
d1	0.50±0.1
E	1.75±0.10
F	3.50±0.05
K0	0.68±0.05
P	4.00±0.1
P0	4.00±0.10
P1	2.00±0.05
W	8.00 ^{+0.03} _{-0.01}
T	0.25±0.05

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±0.5
T1	1.0±0.2
Quantity	3000PCS

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