



B5819DH

Small Signal Schottky Barrier Diode

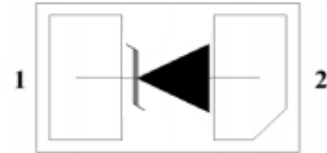
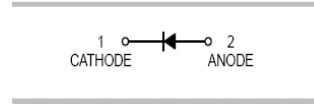


Features

- High reliability
- Low reverse current and low forward voltage
- RoHS compliant with Halogen-free

Mechanical Data

- Case: DFN1610-2L
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin-Plated Leads, Solderability-per MIL-STD-202, Method 208



DFN1610-2L

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
B5819DH	DFN1610-2L	10000 pcs / Tape & Reel	SL

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	40	V
Maximum RMS Voltage	V _{RMS}	28	V
DC Reverse Voltage	V _R	40	V
Maximum Average Forward Output Current	I _{F(AV)}	1	A
Peak Forward Surge Current (8.3ms single half sine-wave)	I _{FSM}	20	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance Junction-to-Air ^{*1}	R _{θJA}	125	°C/W
Thermal Resistance Junction-to-Lead ^{*1}	R _{θJL}	55	°C/W
Thermal Resistance Junction-to-Case ^{*1}	R _{θJC}	60	°C/W
Operating junction Temperature	T _J	-55 ~ +150	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C



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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	V _(BR)	I _R = 1mA	40	-	-	V
Forward Voltage ^{*2}	V _F	I _F = 1A	-	-	0.55	V
		I _F = 3A	-	-	0.90	V
Maximum Peak Reverse Current ^{*3}	I _R	V _R = 40V	-	-	5	μA
Junction Capacitance	C _J	V _R = 4V, f = 1MHZ	-	40	-	pF

Notes:

1. The data tested by surface mounted on a 1 inch² FR-4 board with 2OZ copper
2. Pulse width ≤380uS , Duty cycle < 2%
3. pulse test , tp≤5ms



Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

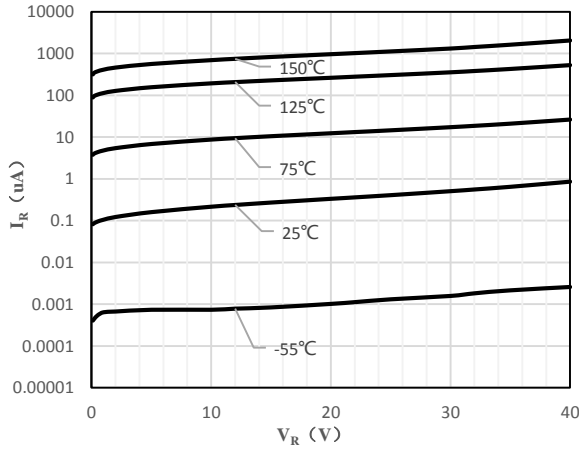


Fig 1 Typical Reverse Characteristic

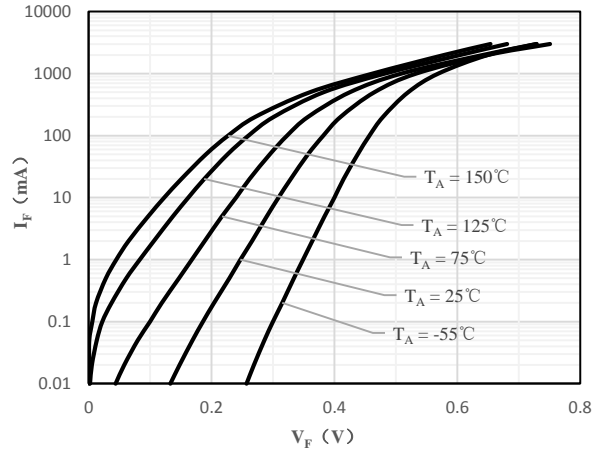


Fig 2 Typical Forward Characteristics

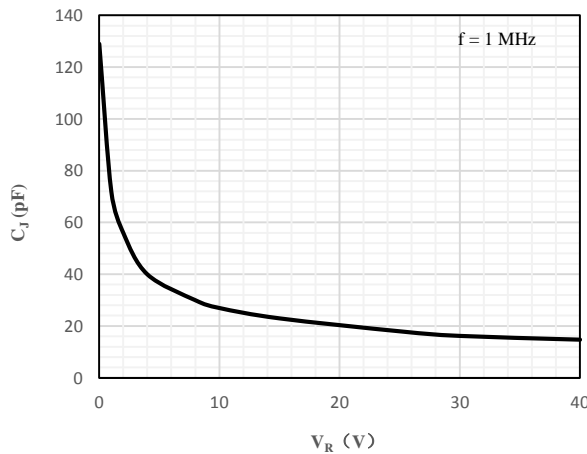


Fig 3 Capacitance Characteristics

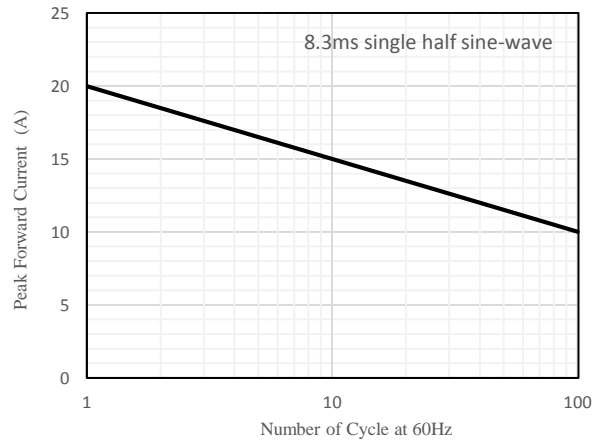


Fig 4 Surge Current Derating Curve

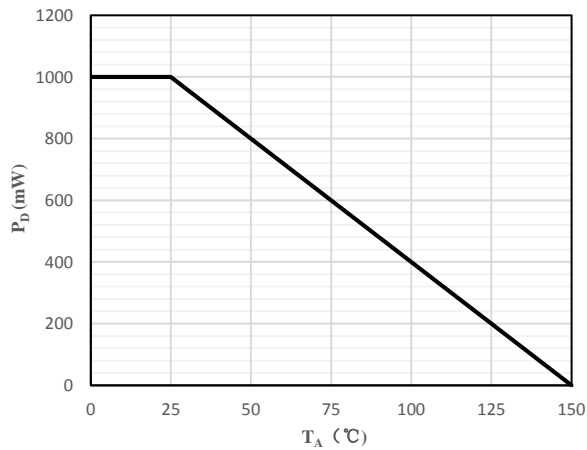


Fig 5 Power Derating Curve

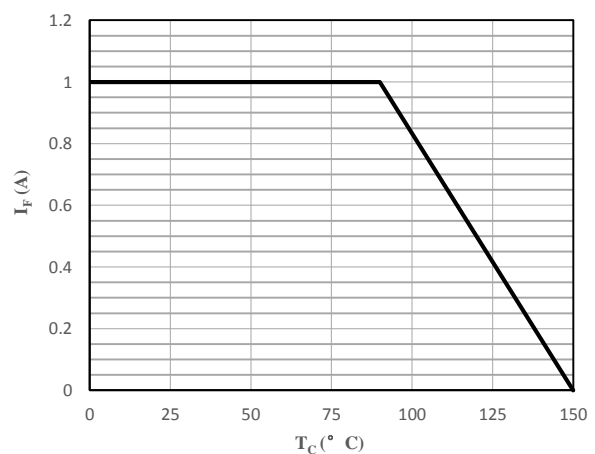
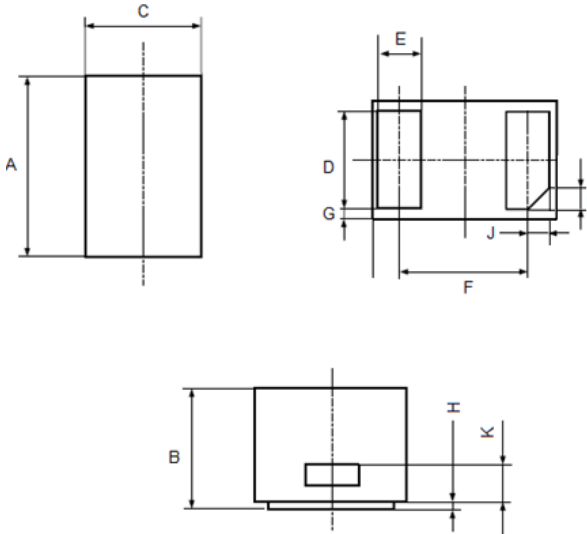


Fig 6 Current Derating Curve



Package Outline Dimensions (Unit: mm)



DFN1610-2L			
Dimension	Min.	Typ.	Max.
A	1.550	1.600	1.650
B	0.450	0.500	0.550
C	0.950	1.000	1.050
D	0.750	0.800	0.850
E	0.350	0.400	0.450
F	1.00	1.100	1.200
G	0.030	0.050	0.070
H	0.000	0.020	0.050
I	0.150	0.200	0.250
J	0.150	0.200	0.250
K	0.100	0.150	0.200

Package Outline Dimensions (Unit: mm)

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