

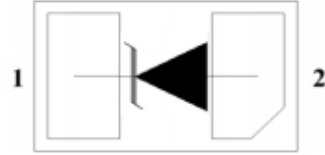
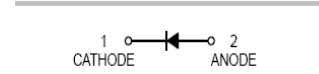
Features

- Fast switching
- Low turn-on voltage

HF

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
BAT54LH	DFN1610-2L	10000 pcs / Tape & Reel	KL1

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	30	V
Working Peak Reverse Voltage	V _{RWM}	30	V
DC Reverse Voltage	V _R	30	V
Maximum Average Forward Output Current	I _{F(AV)}	200	mA
Repetitive Peak Forward Current	I _{FRM}	300	mA
Peak Forward Surge Current (1s single half sine-wave)	I _{FSM}	600	mA

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	250	mW
Thermal Resistance Junction-to-Air	R _{θJA}	400	°C/W
Operating junction Temperature	T _J	-55 ~ +125	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 100\mu\text{A}$	30	-	-	V
Forward Voltage * ¹	V_F	$I_F = 0.1\text{mA}$	-	-	0.24	V
		$I_F = 1\text{mA}$	-	-	0.32	V
		$I_F = 10\text{mA}$	-	-	0.40	V
		$I_F = 30\text{mA}$	-	-	0.50	V
		$I_F = 100\text{mA}$	-	-	0.80	V
Maximum Peak Reverse Current * ²	I_R	$V_R = 25\text{V}$	-	-	2	μA
Junction Capacitance	C_J	$V_R = 1\text{V}, f = 1\text{MHz}$	-	-	10	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA}$ $I_{rr} = 0.1I_R, R_L = 100\Omega$	-	-	5	ns

Notes:

1. Pulse width $\leq 300\mu\text{s}$, Duty cycle $< 2\%$
2. pulse test, $t_p \leq 5\text{ms}$

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

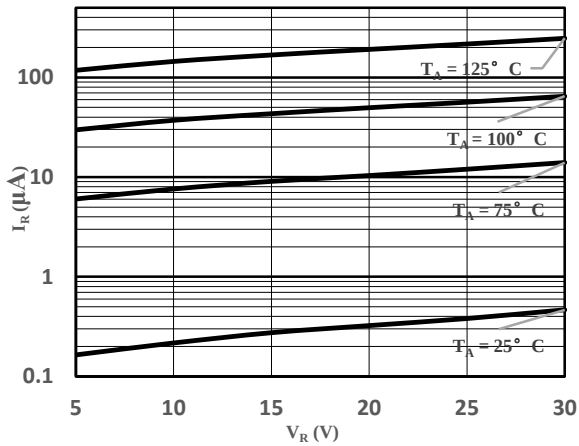


Fig 1 Typical Reverse Characteristic

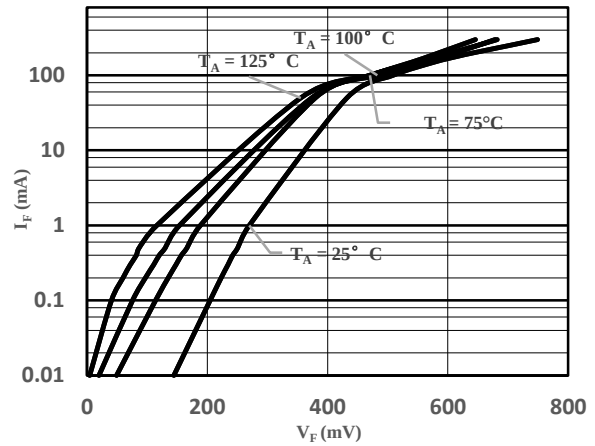


Fig 2 Typical Forward Characteristics

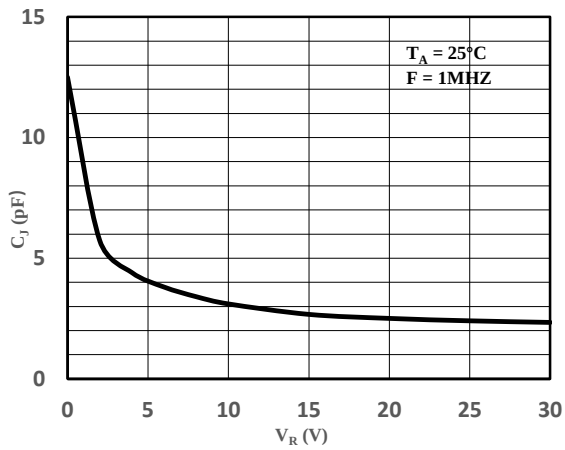


Fig 3 Capacitance Characteristics

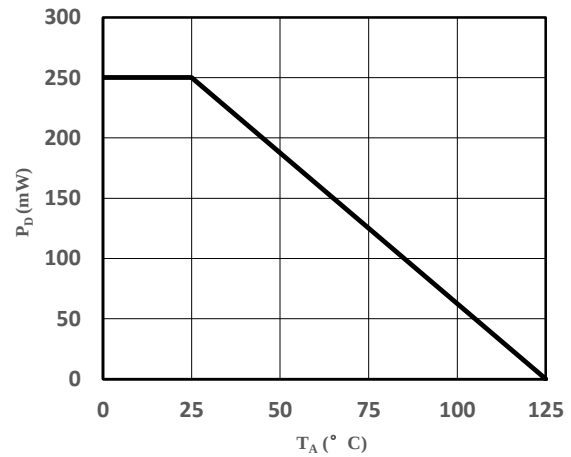
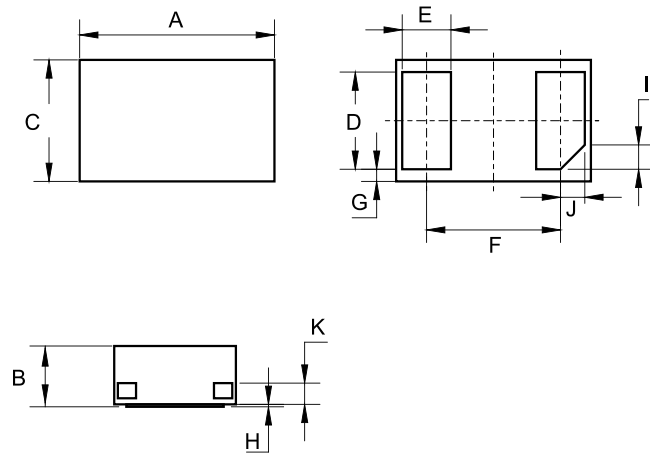


Fig 4 Derating Curve

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	0.050	0.100	0.150
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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