

ACDBUT240LA-HF

RoHS Device
Halogen Free



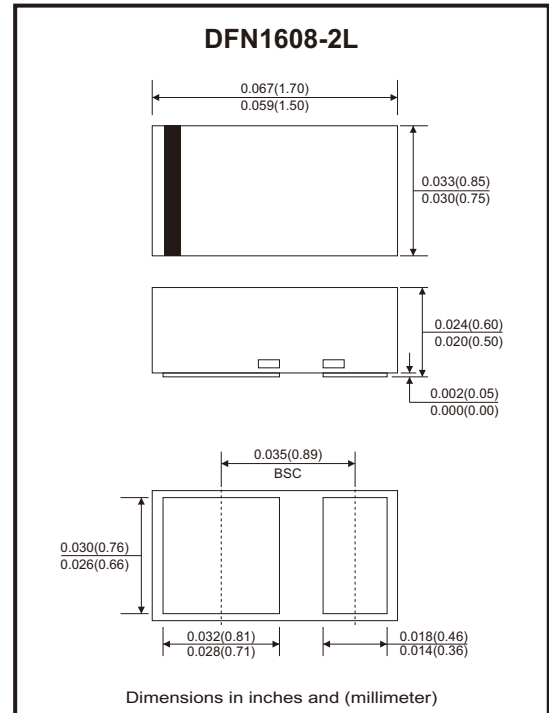
Features

- Small surface mounting type.
- Ideal for automated placement.
- Ultrafast reverse recovery time.
- Low power losses, high efficiency.
- Low forward voltage drop.
- High surge capability.
- AEC-Q101 Qualified.

Mechanical data

- Case: DFN1608-2L, molded plastic.
- Terminals: Matte Tin plated, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.

Circuit Diagram



Maximum Rating (at TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	V_{RRM}	40	V
DC reverse voltage	V_R	40	V
RMS reverse voltage	V_{RMS}	28	V
Average rectified output current	I_O	2	A
Non-repetitive peak forward surge current @ t = 8.3ms	I_{FSM}	20	A
Typical thermal resistance, junction to ambient	$R_{\theta JA}$	80	°C/W
Operation junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Electrical Characteristics (at TA=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V_{BR}	$I_R = 0.5mA$	40			V
Reverse current	I_R	$V_R = 4V$			15	μA
		$V_R = 40V$			100	
Forward voltage	V_F	$I_F = 1A$			0.47	V
		$I_F = 2A$			0.53	

Typical Rating and Characteristic Curves (ACDBUT240LA-HF)

Fig.1 - I_o — T_L Curve

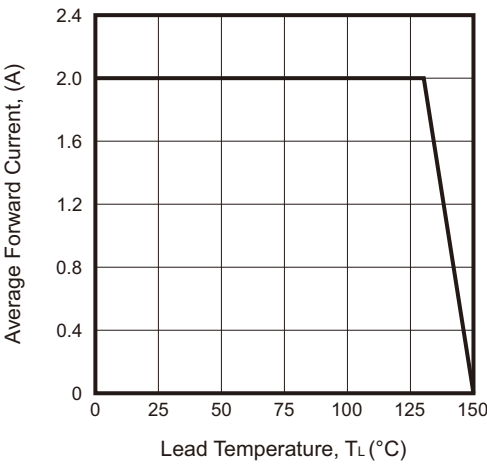


Fig.2 - Surge Forward Current Capability

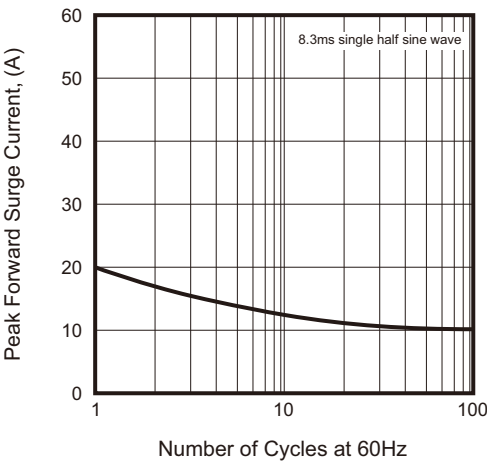


Fig.3 - Typical Reverse Characteristic

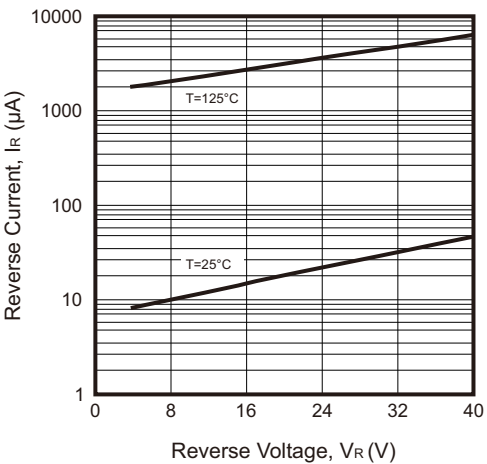


Fig.4 - Typical Forward Characteristic

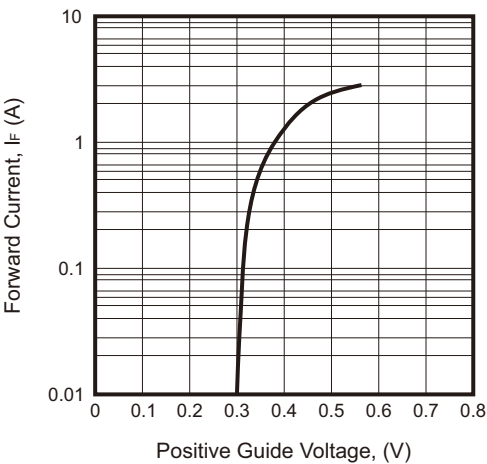
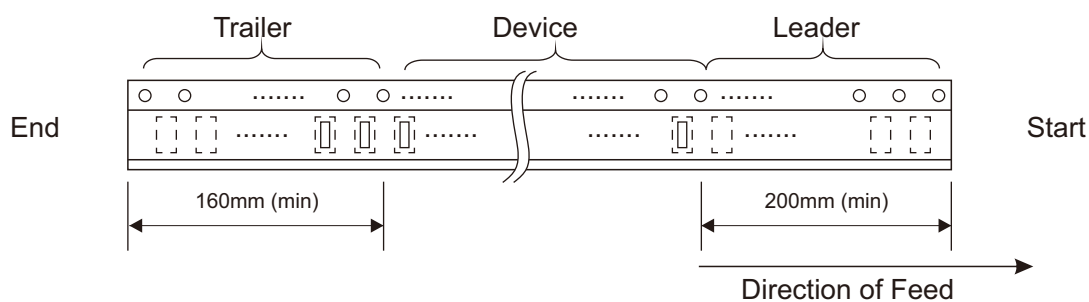


Figure 1 consists of four sub-diagrams labeled (a) through (d), illustrating the geometric parameters of the test cells.

- (a) Rectangular Cell Top View:** A rectangular cell with width W and height B . It features two rows of circular components. The top row has six circles with center-to-center spacing P_0 . The bottom row has five circles with center-to-center spacing P . The distance between the center lines of the two rows is F . The distance from the left edge to the center of the first circle in the bottom row is P . The distance from the center of the last circle in the bottom row to the right edge is A . The diameter of each circle is d . The distance from the top edge to the center line of the top row is E .
- (b) Rectangular Cell Side View:** A cross-sectional view showing the thickness of the top plate as T and the thickness of the bottom plate as C .
- (c) Circular Cell Top View:** A circular cell with a central component. The distance from the center to the top edge of the central component is 120° .
- (d) Circular Cell Side View:** A cross-sectional view showing the inner diameter D_1 , the outer diameter D_2 , and the width W_1 of the central component.



DFN1608 -2L	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	0.95 ± 0.05	1.76 ± 0.05	0.70 ± 0.05	1.50 + 0.10 - 0.00	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.037 ± 0.002	0.069 ± 0.002	0.028 ± 0.002	0.059 + 0.004 - 0.000	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

DFN1608 -2L	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.25 ± 0.05	8.00 + 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.010 ± 0.002	0.315 + 0.012 - 0.004	0.484 ± 0.039

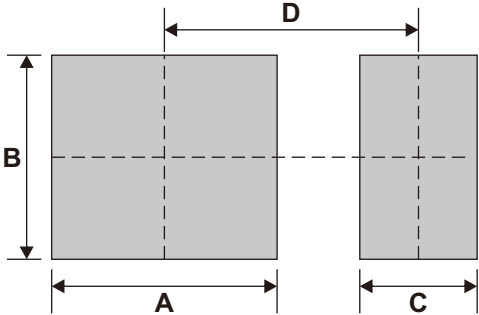
Marking Code

Part Number	Marking Code
ACDBUT240LA-HF	S24



Suggested P.C.B. PAD Layout

SIZE	DFN1608-2L	
	(mm)	(inch)
A	0.95	0.037
B	0.85	0.033
C	0.60	0.024
D	0.90	0.035



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DFN1608-2L	10,000	7