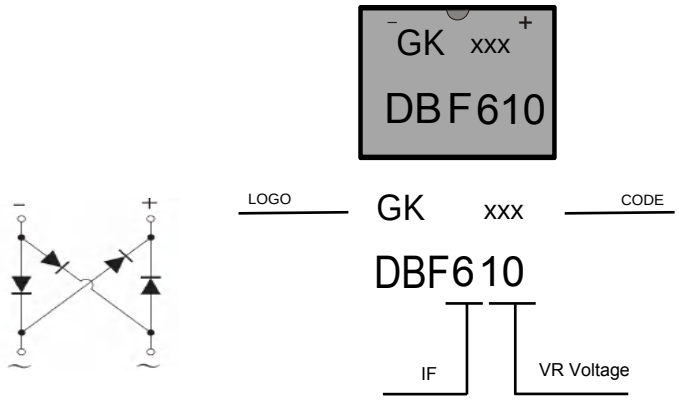
FEATURES

- Glass Passivated Chip Junction
- Reverse Voltage - 1000 V
- Forward Current - 6.0 A
- High Surge Current Capability
- Designed for Surface Mount Application

VOLTAGE RANGE
1000 Volts
CURRENT
6.0 Ampere

MECHANICAL DATA

- Case: DBF
- Terminals: Solderable per MIL-STD-750 , Method 2026



Internal Schematic

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

TYPE NUMBER	DBF610	UNIT
Maximum Recurrent Peak Reverse Voltage	1000	
Maximum RMS Voltage	700	V
Maximum DC Blocking Voltage	1000	
Maximum Average Forward Rectified Current	6.0	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	120	A
I^2t Rating for Fusing (1ms < t < 8.3ms)	60	A^2S
Maximum Forward Voltage Drop per Bridge Element at 6.0A	1.1	V
Maximum DC Reverse Current Ta=25°C	5.0	μA
at Rated DC Blocking Voltage Ta=125°C	200	μA
Typical Thermal Resistance R JA (Note 2)	50	°C/W
Operating Temperature Range, T_J	-55 — +150	°C
Storage Temperature Range, T_{STG}	-55 — +150	°C

NOTES: 1. Mounted on P.C. Board.
2. Thermal Resistance Junction to Ambient.

RATING AND CHARACTERISTIC CURVES

Fig.1 Average Rectified Output Current Derating Curve

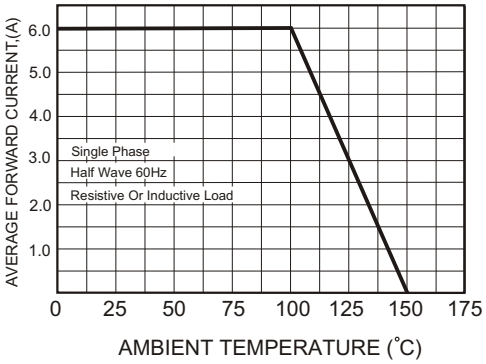


Fig.2 Typical Reverse Characteristics

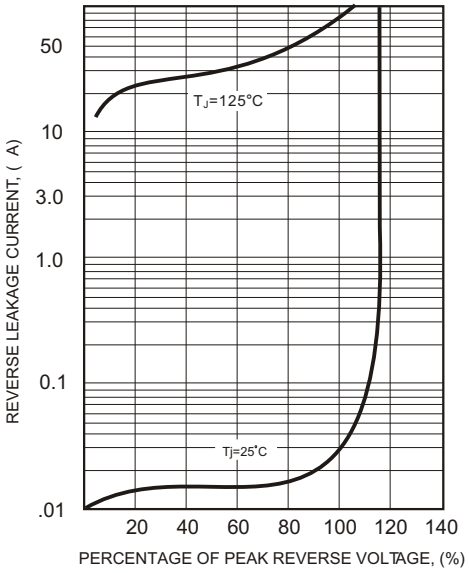


Fig.3 Typical Instaneous Forward Characteristics

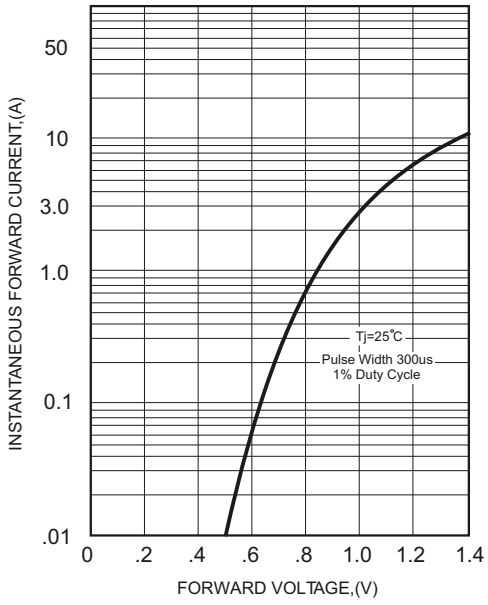
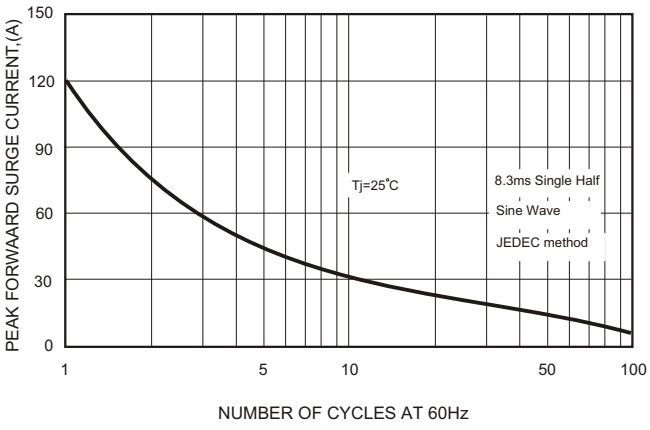


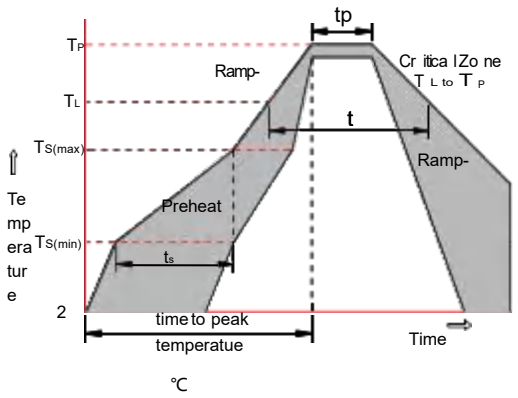
Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



Soldering parameters

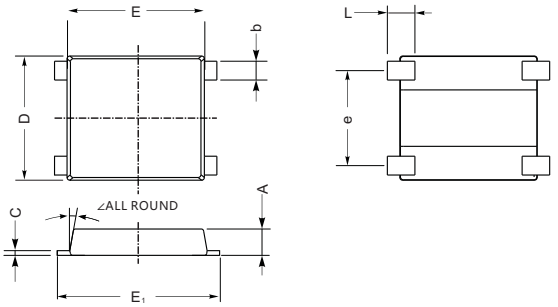
Reflow Condition		Pb-Free assembly (see as bellow)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150℃
	-Temperature Max($T_{s(max)}$)	+200℃
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3℃/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3℃/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217℃
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)℃
Time within 5℃ of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6℃/sec. Max
Time 25℃ to Peak Temp (T_P)		8 min. Max
Do not exceed		+260℃

FIG5: Reflow condition

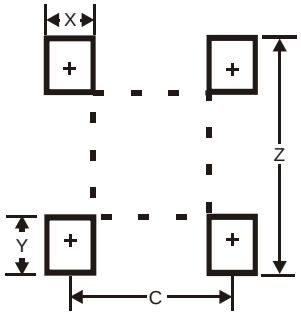


Package Dimensions & Suggested Pad Layout

DBF



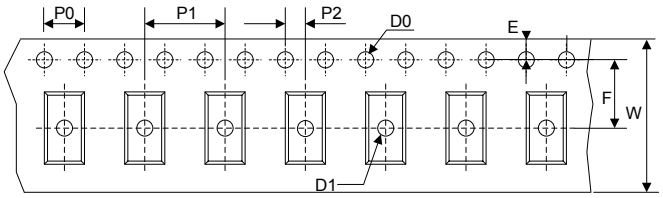
UNIT		A	C	D	E	E_1	L	e	b	∠
mm	max	1.5	0.29	7.0	7.6	8.9	1.6	5.3	1.15	10°
	min	1.3	0.17	6.2	7.1	8.4	1.0	4.9	0.95	
mil	max	59	12	276	299	350	55	209	45	
	min	51	7	244	280	331	31.5	193	37	

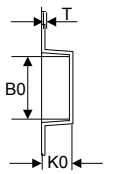


Dimensions	
Z	9.4
X	1.8
Y	2.1
C	5.1

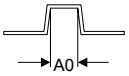
Tape & rell specification

Tape





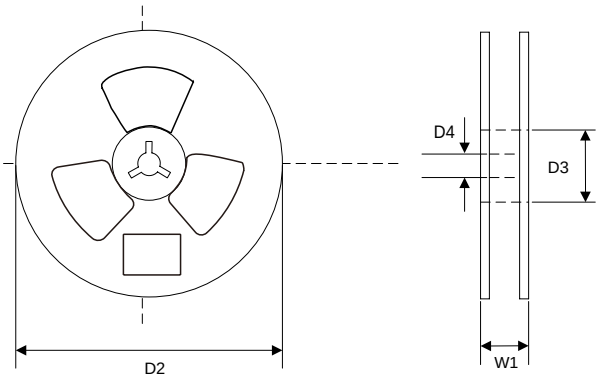
SECTION : B-B



SECTION : A-A

Symbol	Dimension (mm)
P0	4.00±0.20
P1	12.00±0.20
P2	2.00±0.20
D0	1.60±0.15
D1	1.60±0.15
E	1.75±0.20
F	7.50±0.15
W	16.00±0.20
A0	7.00±0.25
B0	9.30±0.25
K0	1.80±0.25
T	0.25±0.10

13” Reel



D2	330.0±5.0
D3	73Min.
D4	16.0±2.5
W1	21.0±3.0
Quantity: 3000PCS	