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Maximum Ratings and Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	RDBF31	RDBF32	RDBF34	RDBF36	RDBF38	RDBF310	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	140	280	420	560	700	V
Average Rectified Output Current (Note 5) @ T_C = +120°C	I_O	3.0						A
Non-Repetitive Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	100						A
I^2t Rating for Fusing (1ms < t < 8.3ms)	I^2t	41.5						A^2S
Maximum Forward Voltage (Per Element) @I_F=2.5A	V_{FM}	1.3						V
Maximum Reverse Recovery Time (Note 7)	t_{RR}	150			250	500		ns
Peak Reverse Current @T_A=+25℃ At Rated DC Blocking Voltage @T_A=+125℃	I_R	5.0 500						μA
Typical Total Capacitance (Per Element) (Note 8)	C_T	45						pF

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Ambient (Note 6) (Per Element)	$R_{\theta JA}$	15	°C/W
Typical Thermal Resistance, Junction to Case (Per Element)	$R_{\theta JC}$	5	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

Notes:
5. Device mounted on glass epoxy PC board with 1.3mm^2 solder pad.
6. Device mounted on 15mmx12mmx1.6mm Al pad attach 195mmx110mmx10mm steel plate.
7. Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
8. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.

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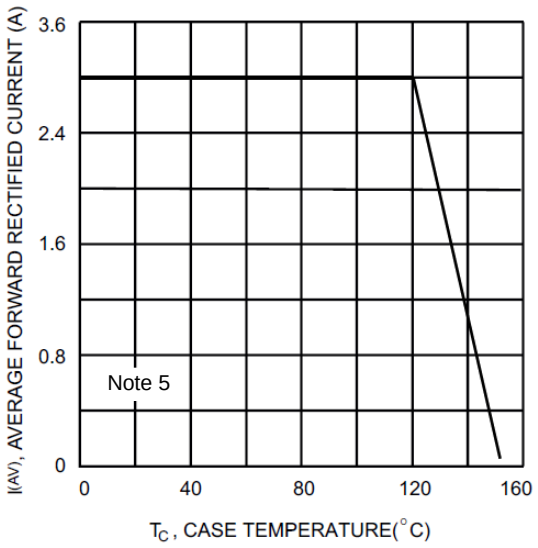

Fig. 1 Output Current Derating Curve

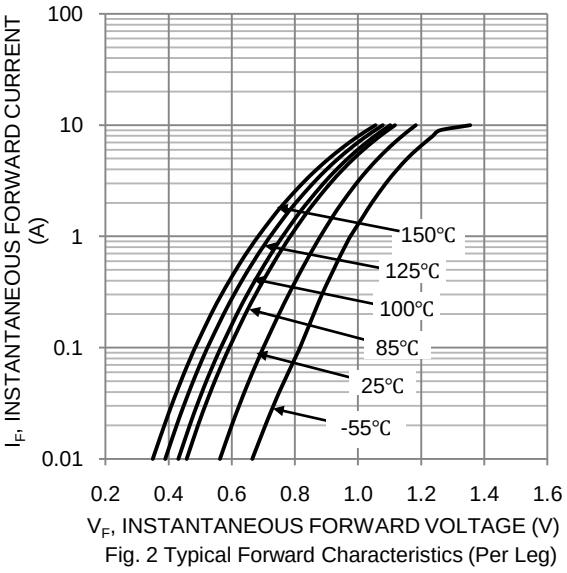

Fig. 2 Typical Forward Characteristics (Per Leg)

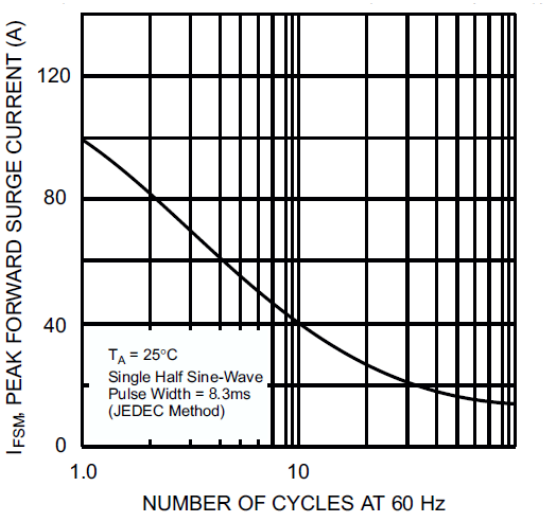

Fig.3 Maximum Non-Repetitive Surge Current

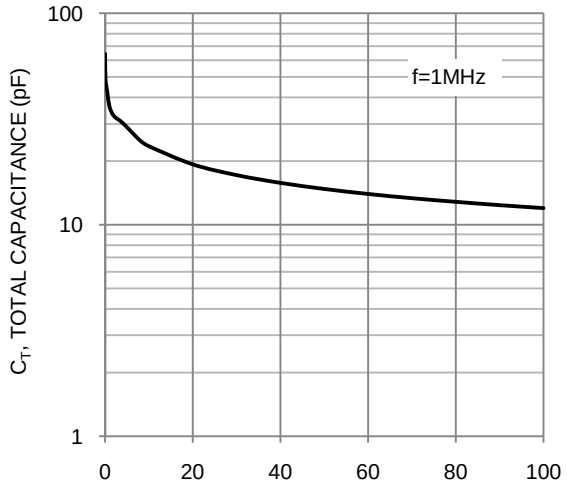

Fig. 4 Typical Total Capacitance

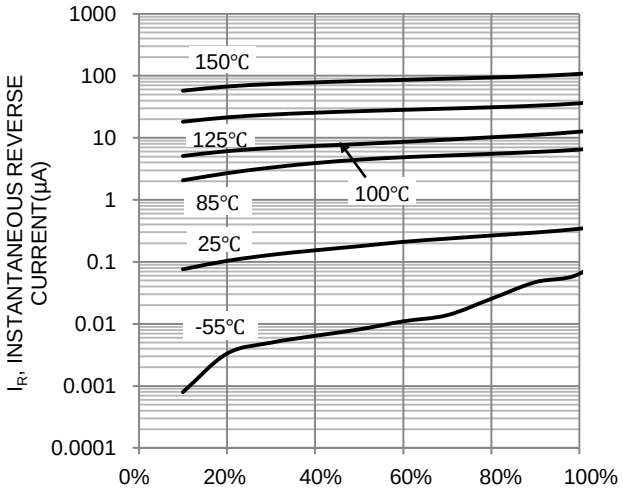

Fig.5 Typical Reverse Characteristics

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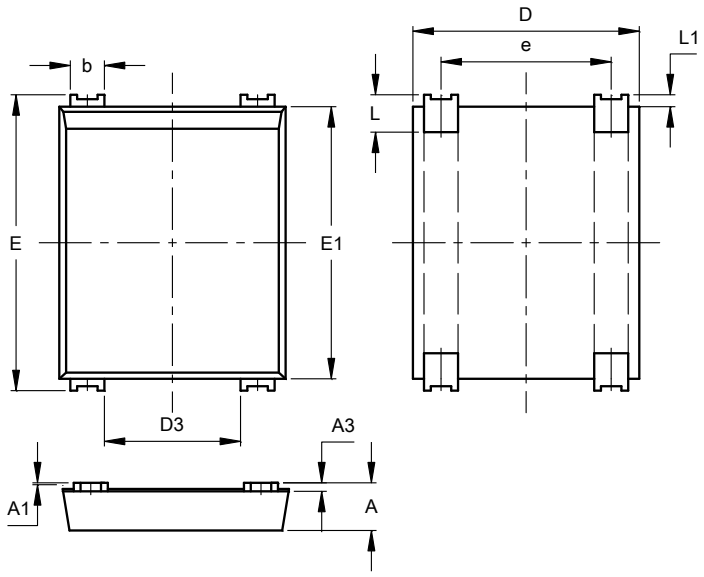
Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

DBF

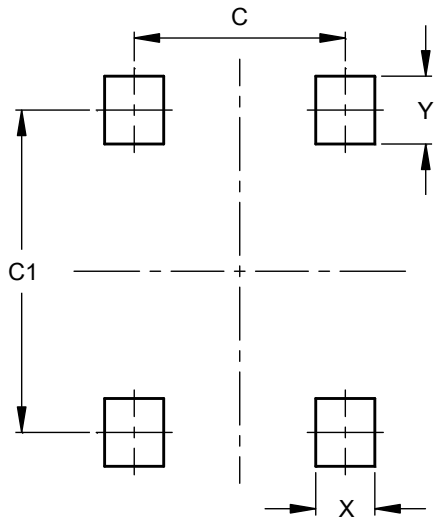


DBF			
Dim	**Min**	**Max**	**Typ**
A	1.30	1.50	--
A1	0.04	0.12	--
A3	0.15	0.35	--
b	0.80	1.20	--
D	6.45	6.85	--
D3	3.80	4.20	--
E	8.50	8.90	--
E1	7.80	8.20	--
e	4.80	5.20	--
L	0.80	1.40	--
L1	0.30	0.40	--
All Dimensions in mm			

Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

DBF



Dimensions	Value (in mm)
C	5.00
C1	7.60
X	1.40
Y	1.60

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