

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

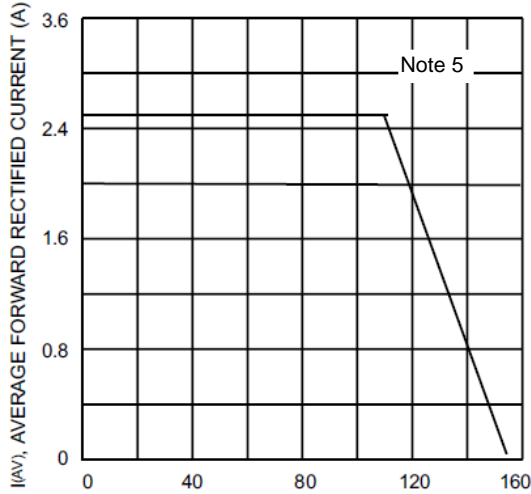
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	RDBF251	RDBF252	RDBF254	RDBF256	RDBF258	RDBF2510	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{R(RM)} V _{R(WM)} 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 = +110°C	I _O	2.5						A
Non-Repetitive Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	75						A
I ² t Rating for Fusing (1ms < t < 8.3ms)	I ² t	23.34						A ² S
Max 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°C At Rated DC Blocking Voltage @T _A =+125°C (Note 8)	I _R	5.0			500			μA
Total Capacitance (Per Element) (Note 9)	C _T	30						pF

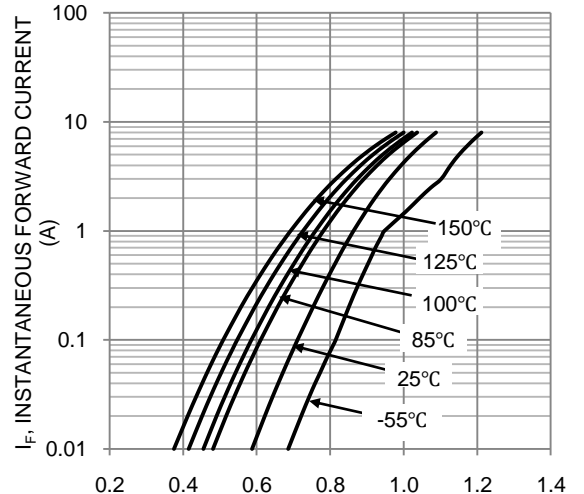
Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Ambient (Note 6) (Per Element)	R _{θJA}	35	°C/W
Typical Thermal Resistance, Junction to Case (Per Element)	R _{θJC}	7.8	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

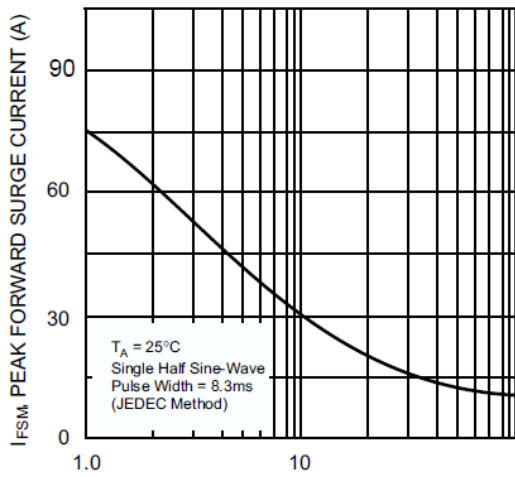
- Notes:
5. Device mounted on glass epoxy PC board with 1.3mm² solder pad.
 6. Device mounted on glass epoxy substrate with 1oz/ft², 30mmx30mm copper pad per pin.
 7. Measured with I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.
 8. Short duration pulse test used to minimize self-heating effect.
 9. Measured with V_R = 4.0VDC, f = 1MHz



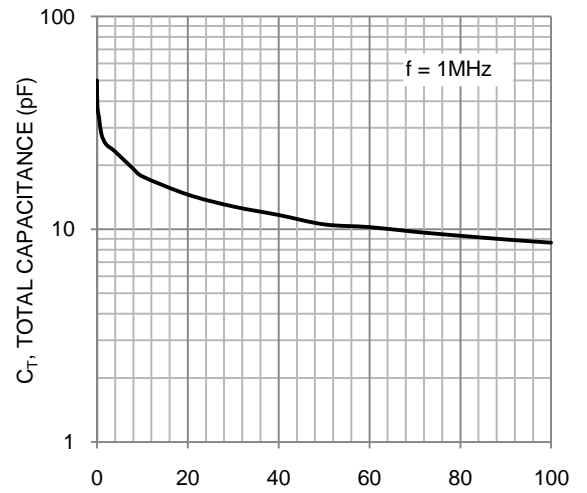
T_C , CASE TEMPERATURE(°C)
Fig. 1 Output Current Derating Curve



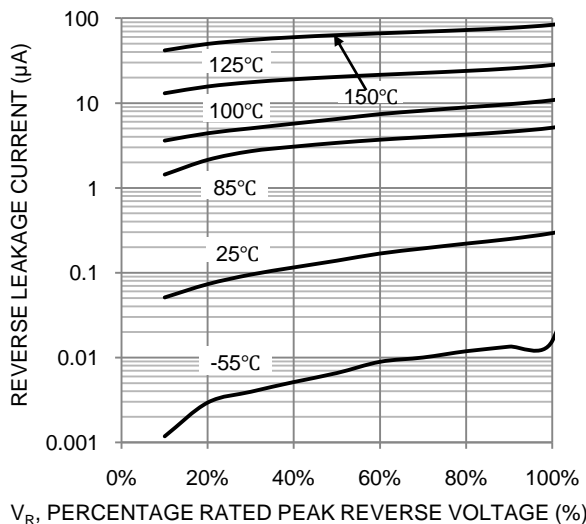
I_F , INSTANTANEOUS FORWARD CURRENT (A)
 V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics (Per Leg)



I_{FSM} , PEAK FORWARD SURGE CURRENT (A)
NUMBER OF CYCLES AT 60 Hz
Fig. 3 Maximum Peak Forward Surge Current (per leg)



C_T , TOTAL CAPACITANCE (pF)
 V_R , REVERSE VOLTAGE (V)
Fig. 4 Typical Junction Capacitance



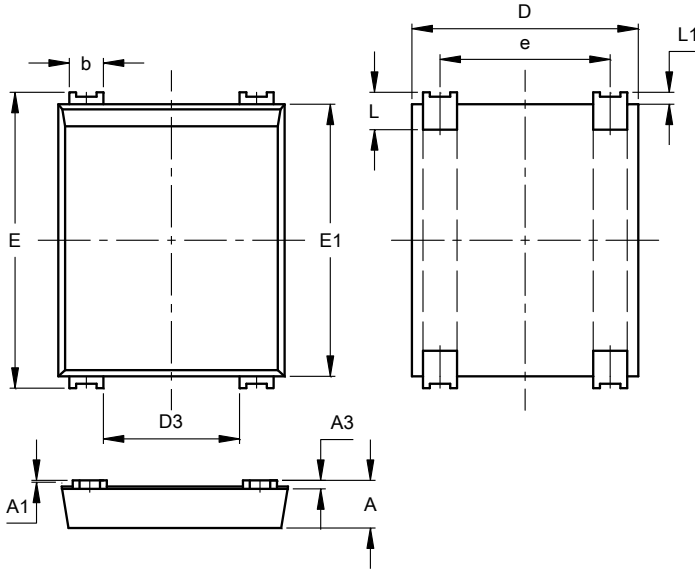
REVERSE LEAKAGE CURRENT (μA)
 V_R , PERCENTAGE RATED PEAK REVERSE VOLTAGE (%)
Fig.5 Typical Reverse Characteristics

Package Outline Dimensions

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

NEW PRODUCT

DBF

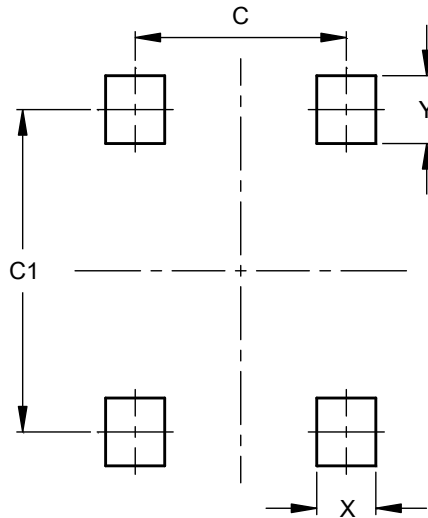


DBF			
Dim	Min	Max	Typ
A	1.30	1.50	--
A1	0.04	0.12	--
A3	0.15	0.35	--
b	0.80	1.20	--
D	6.45	6.85	--
D3	3.80	4.20	--
E	8.50	8.90	--
E1	7.80	8.20	--
e	4.80	5.20	--
L	0.80	1.40	--
L1	0.30	0.40	--
All Dimensions in mm			

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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