

Marking Information



RDBF25x(x) = Product Type Marking Code
 011 = Manufacturers' Code Marking
 YMD = Date Code Marking
 Y = Last Digit of Year (ex: 8 = 2018)
 M = See Month/Code Table Below
 D = Day 1 to 9 = 1 to 9; Day 10 to 31 = A to V

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D

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_{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) @ $T_C=+110^{\circ}C$	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^2t Rating for Fusing (1ms < t < 8.3ms)	I^2t	23.34						A^2S
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 @ $T_A=+25^{\circ}C$ At Rated DC Blocking Voltage (Note 8) @ $T_A=+125^{\circ}C$	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:
- Device mounted on glass epoxy PC board with 1.3mm² solder pad.
 - Device mounted on glass epoxy substrate with 1oz/ft², 30mmx30mm copper pad per pin.
 - Measured with I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.
 - Short duration pulse test used to minimize self-heating effect.
 - Measured with V_R = 4.0VDC, f = 1MHz

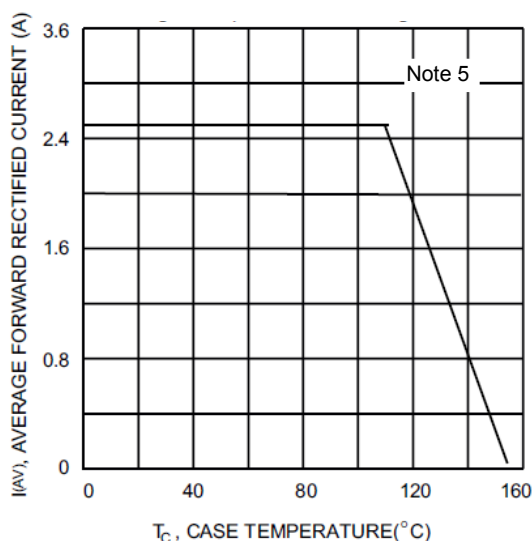


Fig. 1 Output Current Derating Curve

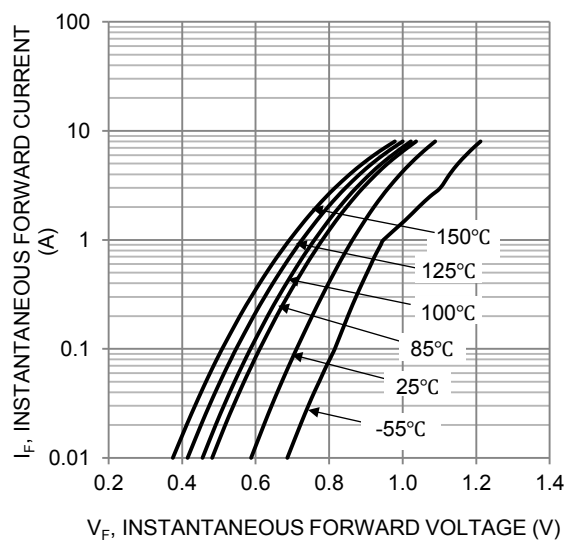


Fig. 2 Typical Forward Characteristics (Per Leg)

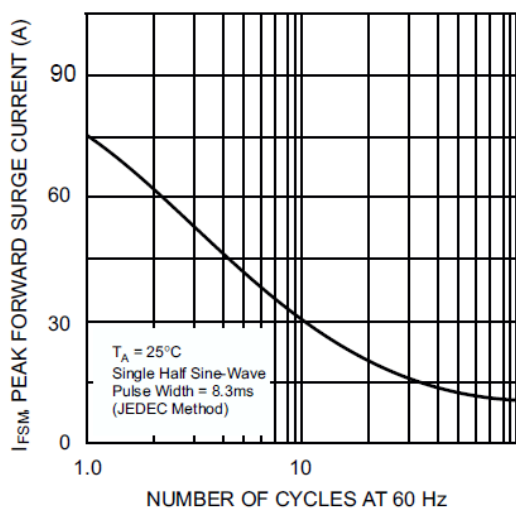


Fig. 3 Maximum Peak Forward Surge Current (per leg)

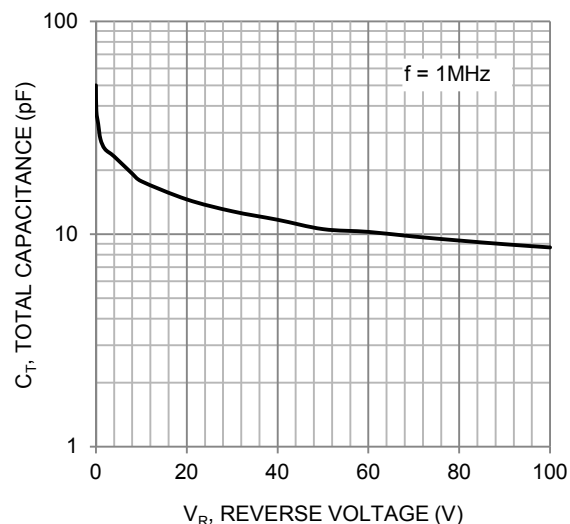


Fig. 4 Typical Junction Capacitance

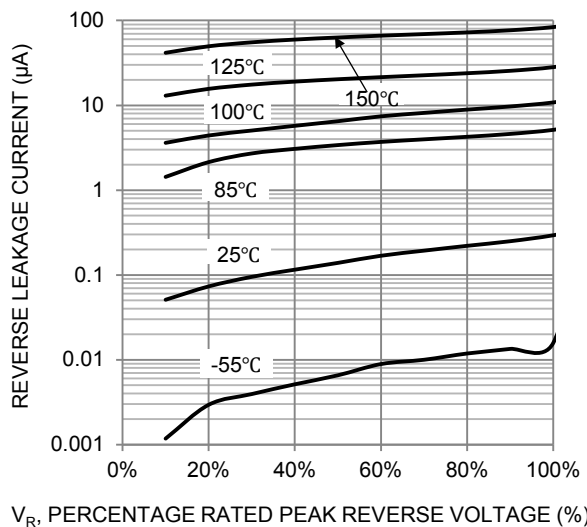
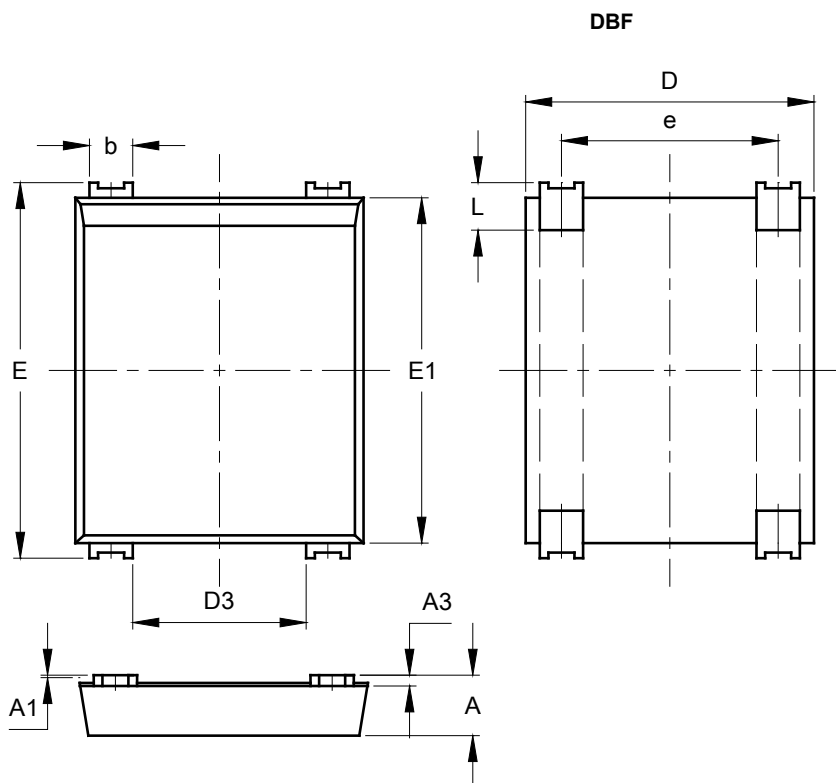


Fig. 5 Typical Reverse Characteristics

Package Outline Dimensions

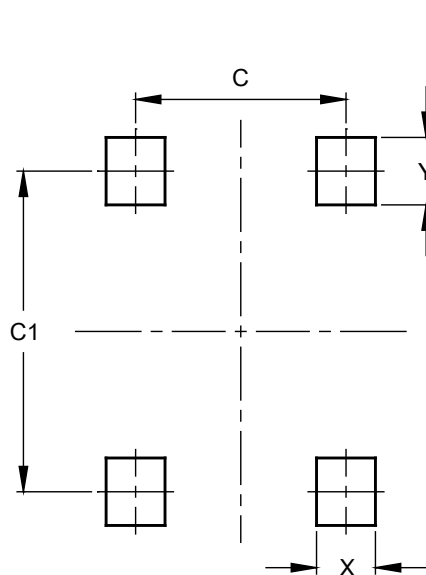
Please see <http://www.diodes.com/package-outlines.html> for the latest version.



Dim	Min	Max
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	7.50	8.20
e	4.80	5.20
L	0.50	1.50
All dimensions in mm		

Suggested Pad Layout

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



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

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