

## Features

- Halogen Free. "Green" Device (Note 1)
- Glass Passivated Chip Junction
- Low Profile Package
- For Surface Mount Applications
- Super Fast Reverse Recovery Time
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

## Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value				Unit
		ER2DBFL	ER2GBFL	ER2JBFL	ER2KBFL	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	200	400	600	800	V
Working Peak Reverse Voltage	V <sub>RWM</sub>					
DC Blocking Voltage	V <sub>R</sub>					
RMS Reverse Voltage	V <sub>RMS</sub>	140	280	420	560	V
Average Rectified Forward Current @ T <sub>L</sub> =75°C	I <sub>F(AV)</sub>	2				A
Non-Repetitive Peak Surge Current @8.3ms Half Sine Wave	I <sub>FSM</sub>	50				A
Non-Repetitive Peak Surge Current @1ms Half Sine Wave		100				
Current Squared Time @1ms≤t≤8.3ms	I <sup>2</sup> t	10.375				A <sup>2</sup> s

## Marking code

Part Number	Marking code
ER2DBFL	ER2D
ER2GBFL	ER2G
ER2JBFL	ER2J
ER2KBFL	ER2K

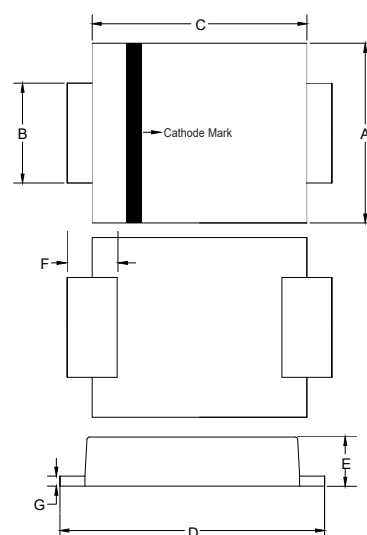
## Internal Structure

Pin	Description	Simplified outline	Graphic symbol
1	Cathode	<p>XXXX = Marking code</p>	
2	Anode		

- Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

# 2 Amp Super Fast Recovery Rectifier 200 to 800 Volts

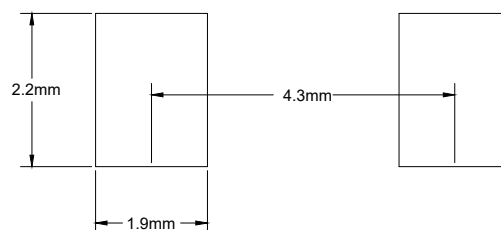
## SMBF



## DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.134	0.150	3.40	3.80	
B	0.075	0.083	1.90	2.10	
C	0.163	0.175	4.15	4.45	
D	0.201	0.220	5.10	5.60	
E	0.041	0.061	1.05	1.55	
F	0.028	0.053	0.70	1.35	
G	0.006	0.010	0.15	0.25	

## Suggested Solder Pad Layout



## Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
$T_J$	Operating Junction Temperature Range		-55		150	°C
$T_{stg}$	Storage Temperature Range		-55		150	°C
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		20		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		60		°C/W

Note:

1. Mounted on P.C.B. with 8mm\*8mm copper pad areas.

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage ER2DBFL ER2GBFL ER2JBFL ER2KBFL	$V_F$	$I_F=2A; T_J=25^{\circ}C$			0.95 1.30 1.70 1.85	V
Reverse Current	$I_R$	at Rated $V_R; T_J=25^{\circ}C$ at Rated $V_R; T_J=125^{\circ}C$			5 100	uA
Reverse Recovery Time	$t_{rr}$	$I_F=0.5A; I_R=1.0A;$ $I_{rr}=0.25A; T_J=25^{\circ}C$			35	ns
Junction Capacitance ER2DBFL ER2GBFL ER2JBFL~ER2KBFL	$C_J$	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		31 17 12		pF

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

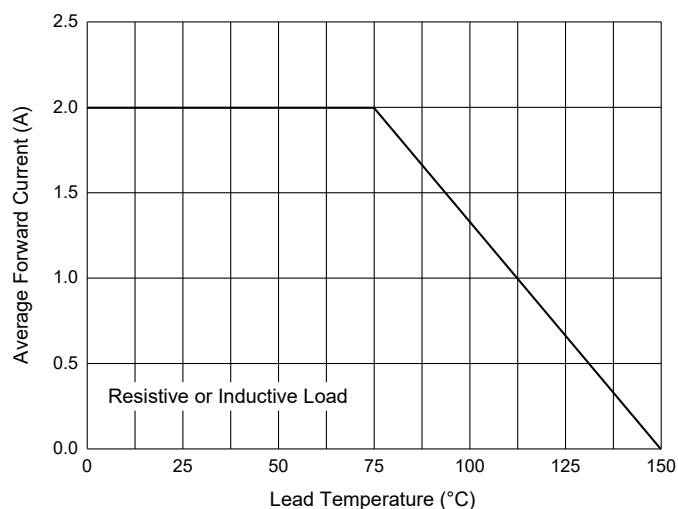


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

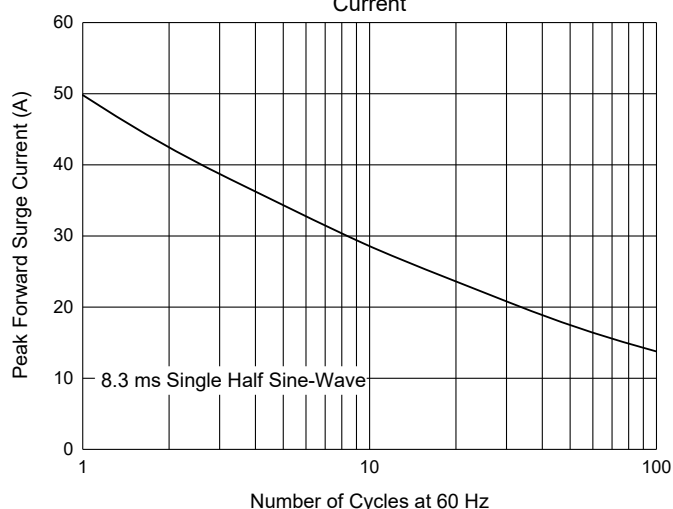


Fig. 3 - Typical Forward Characteristics

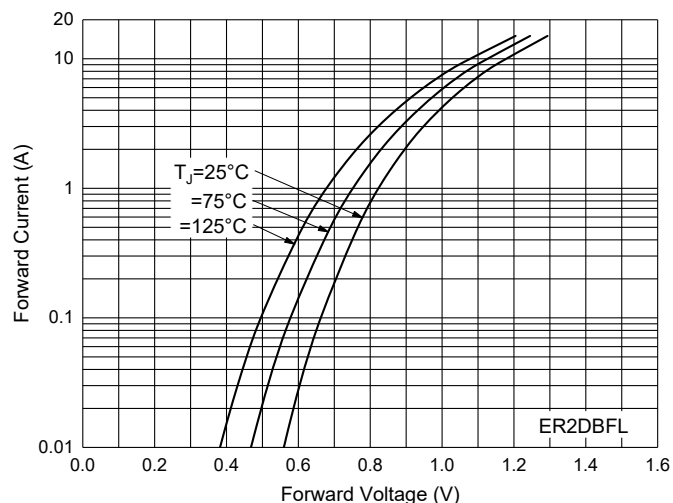


Fig. 4 - Typical Forward Characteristics

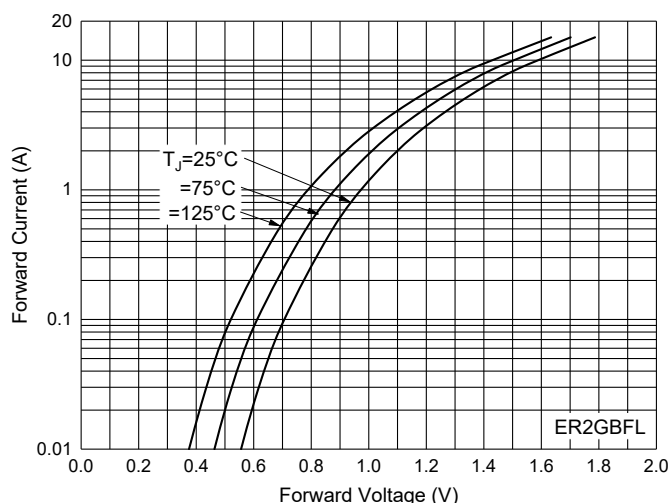


Fig. 5 - Typical Forward Characteristics

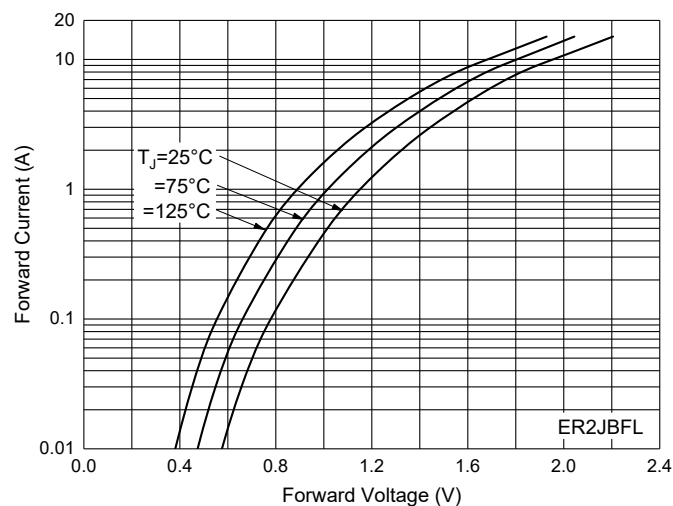
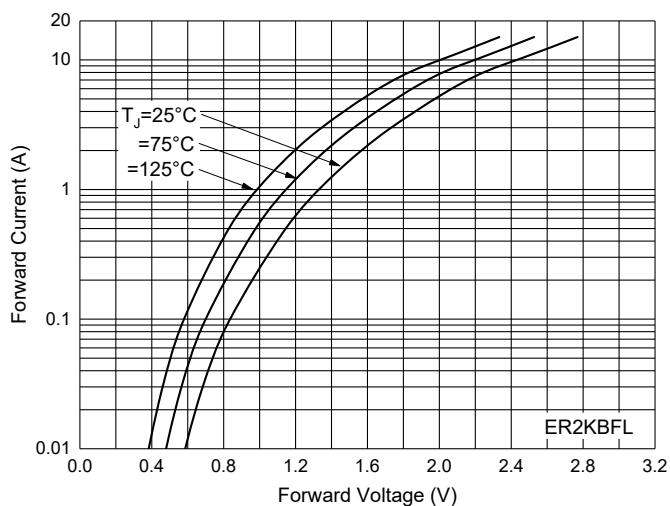


Fig. 6 - Typical Forward Characteristics



## Curve Characteristics

Fig. 7 - Typical Reverse Leakage Characteristics

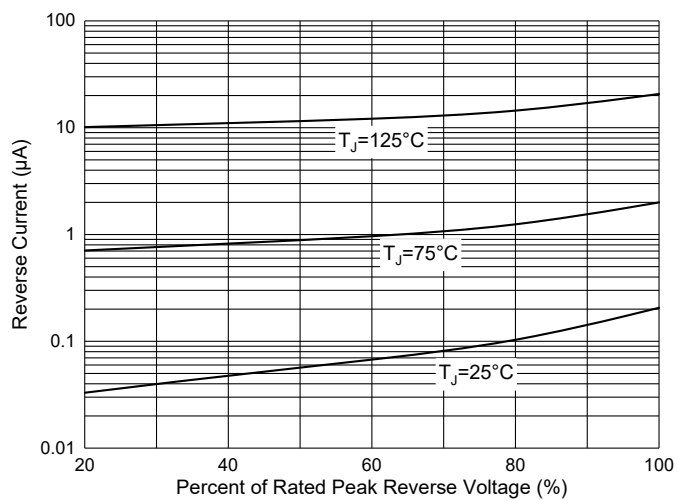
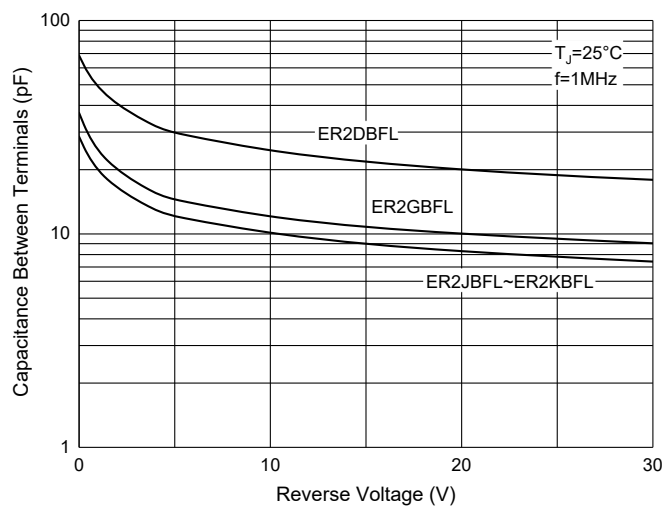


Fig. 8 - Typical Capacitance Characteristics



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:5Kpcs/Reel

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