

## **Features**

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- Glass Passivated Die Construction
- 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)

# 2 Amp Super Fast Recovery Rectifier 200 to 600 Volts

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

		Value			
Parameter	Symbol	ER2DHE3-L	ER2GHE3-L	ER2JHE3-L	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>				
Working Peak Reverse Voltage	$V_{RWM}$	V <sub>RWM</sub> 200		600	V
DC Blocking Voltage	V <sub>R</sub>				
RMS Reverse Voltage	V <sub>RMS</sub>	140	280	420	V
Average Rectified Forward Current @ T <sub>L</sub> =110°C	I <sub>F(AV)</sub>		2		А
Non-Repetitive Peak Surge Current @8.3ms Half Sine Wave	I <sub>FSM</sub>		50		Α
Current Squared Time @ 1ms≤t≤8.3ms	l <sup>2</sup> t		10.375		A <sup>2</sup> s

# Marking code

Part Number	Marking code
ER2DHE3-L	ER2D
ER2GHE3-L	ER2G
ER2JHE3-L	ER2J

# **Internal Structure**

Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode	MCC XXXX 2	
2	Anode	HI YYWW	1 ∘ 2
		XXXX = Marking code YYWW = Date Code	

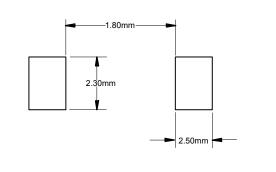
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2. High temperature solder exemption applied, see EU directive annex 7a.

# SMB (DO-214AA) Cathode Mark G G G Cathode Mark Cathod

	DIMENSIONS					
DIM INCI		HES	MM		NOTE	
DIIVI	MIN	MAX	MIN	MAX	NOIL	
Α	0.079	0.103	2.00	2.62		
В	0.075	0.087	1.91	2.21		
С	0.002	0.008	0.05	0.20		
D	0.006	0.012	0.15	0.31		
Е	0.030	0.060	0.76	1.52		
F	0.065	0.091	1.65	2.32		
G	0.200	0.220	5.08	5.59		
Н	0.160	0.191	4.06	4.85		
J	0.130	0.155	3.30	3.94		

## Suggested Solder Pad Layout





# Thermal characteristics

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
T <sub>J</sub>	Operating Junction Temperature Range		-55		150	°C
T <sub>stg</sub>	Storage Temperature Range		-55		150	°C
Rth <sub>(J-L)</sub>	Thermal Resistance from Junction to Lead	Note 1		20		°C/W
Rth <sub>(J-A)</sub>	Thermal Resistance from Junction to Ambient	Note 1		75		°C/W

#### Note:

# Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Тур	Max	Unit
Forward Voltage  ER2DHE3-L  ER2GHE3-L  ER2JHE3-L	V <sub>F</sub>	I <sub>F</sub> =2A;T <sub>J</sub> =25°C			0.95 1.30 1.70	V
Reverse Current	I <sub>R</sub>	at Rated V <sub>R</sub> ;T <sub>J</sub> =25°C at Rated V <sub>R</sub> ;T <sub>J</sub> =125°C			5 100	μА
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =0.5A; I <sub>R</sub> =1.0A; I <sub>rr</sub> =0.25A;T <sub>J</sub> =25°C			35	ns
Junction Capacitance  ER2DHE3-L  ER2GHE3-L  ER2JHE3-L	Сл	V <sub>R</sub> =4V;f=1MHz;T <sub>J</sub> =25°C		30 25 20		pF

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<sup>1.</sup>Mounted on P.C.B. with 8mm\*8mm copper pad areas.



# **Curve Characteristics**

Fig. 1 - Forward Current Derating Curve 2.4 2.0 Average Forward Current (A) 1.6 1.2 0.8 0.4 Resistive or Inductive Load 0.0 25 50 75 100 150 125 Lead Temperature (°C)

Fig. 3 - Typical Instantaneous Forward Characteristics

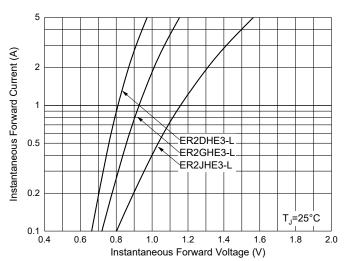


Fig. 5 - Capacitance Characteristics

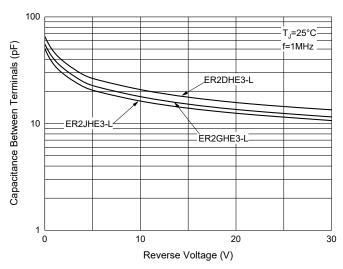
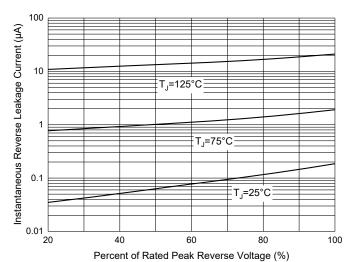


Fig. 4 - Typical Reverse Leakage Characteristics





# **Ordering Information**

Device	Packing	
ER2DHE3-LTP ~ ER2JHE3-LTP	Tape&Reel:3Kpcs/Reel	

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