



Micro Commercial Components  
 21201 Itasca Street Chatsworth  
 CA 91311  
 Phone: (818) 701-4933  
 Fax: (818) 701-4939

# ER1Q THRU ER1ZZ

## Features

- For Surface Mount Applications
- Extremely Low Thermal Resistance
- High Temp Soldering: 250°C for 10 Seconds At Terminals
- Super Fast Recovery Times For High Efficiency
- Gull Wing Lead Bend To Prevent Arcing
- Perfect For Ballast, Television And Monitor Applications

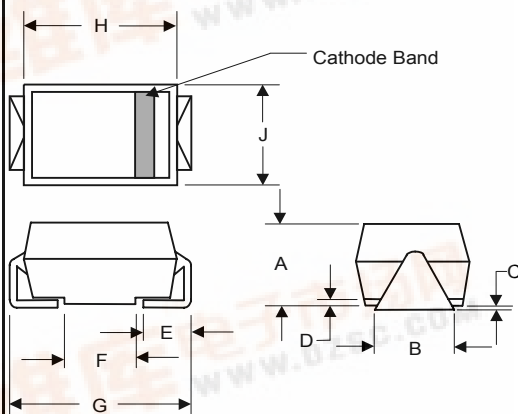
## 1 Amp Super Fast Recovery Silicon Rectifier 1200 to 2000 Volts

## Maximum Ratings

- Operating Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C
- Maximum Thermal Resistance; 15°C/W Junction To Lead

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
ER1Q	ER1Q	1200V	840V	1200V
ER1V	ER1V	1400V	980V	1400V
ER1Y	ER1Y	1600V	1120V	1600V
ER1Z	ER1Z	1800V	1260V	1800V
ER1ZZ	ER1ZZ	2000V	1400V	2000V

## DO-214AA (SMBJ) (Round Lead)



## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	$T_J = 55^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage ER1Q-ER1V ER1Y-ER1ZZ	$V_F$	1.85V 2.0V	$I_{FM} = 1.0A;$ $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5 $\mu\text{A}$ 30 $\mu\text{A}$	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Maximum Reverse Recovery Time ER1Q-ER1Y ER1Z-ER1ZZ	$T_{rr}$	150ns 300ns	$I_F=0.5A, I_R=1.0A,$ $I_{rr}=0.25A$
Typical Junction Capacitance	$C_J$	45pF	Measured at 1.0MHz, $V_R=4.0V$

\*Pulse test: Pulse width 200  $\mu\text{sec}$ , Duty cycle 2%

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.078	.116	1.98	2.95	
B	.075	.089	1.90	2.25	
C	.002	.008	.05	.20	
D	---	.02	---	.51	
E	.035	.055	.90	1.40	
F	.065	.091	1.65	2.32	
G	.205	.224	5.21	5.69	
H	.160	.180	4.06	4.57	
J	.130	.155	3.30	3.94	

### SUGGESTED SOLDER PAD LAYOUT

