

# CD5817 thru CD5819, CD6759 thru CD6761, CD1A20 thru CD1A100



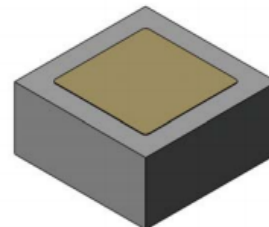
## Schottky Barrier Rectifier Chip Series

Rev. V1

### Features

- 1 Amp Schottky Barrier Rectifier Chips
- Silicon Dioxide Passivated
- Compatible With All Wire Bonding and Die Attach Techniques (with the exception of solder reflow)

### Die



### Description

The silicon Schottky barrier rectifier chip series offers a large reverse breakdown voltage with low forward voltage. This die has an advanced high-reliability passivation for very fast settling time and low leakage current.

This Schottky diode is designed to be used in wide variety of applications, such as in high frequency rectifiers, reverse polarity protection and more.

CD5819 and CD6761 available in JANHC and JANKC per MIL-PRF-19500/586.

### Electrical Specifications: $T_A = +25^\circ\text{C}$

Part #	Working Peak Reverse Voltage	Maximum Forward Voltage		Maximum Reverse Leakage Current @ Rated Voltage	
	$V_{RWM}$	$V_F @ 0.1 \text{ A}$	$V_F @ 1.0 \text{ A}$	$I_R @ 25^\circ\text{C}$	$I_R @ 100^\circ\text{C}$
	V	V		mA	
CD5817	20	0.36	0.60	0.10	5.0
JHC, JKC 5817	20	0.32	0.45	0.07	5.0
CD5818	30	0.36	0.60	0.10	5.0
CD5819	40	0.36	0.60	0.10	5.0
JHC, JKC 5819	45	0.34	0.49	0.05	5.0
CD6759	60	0.38	0.75	0.10	6.0
CD6760	80	0.38	0.75	0.10	6.0
CD6761	100	0.38	0.75	0.10	6.0
JHC, JKC 6761	100	0.38	0.69	0.10	12.0
CD1A20	20	0.36	0.60	0.10	5.0
CD1A30	30	0.36	0.60	0.10	5.0
CD1A40	40	0.36	0.60	0.10	5.0
CD1A50	50	0.36	0.60	0.10	5.0
CD1A60	60	0.38	0.75	0.10	12.0
CD1A80	80	0.38	0.75	0.10	12.0
CD1A100	100	0.38	0.75	0.10	12.0

1 \* Restrictions on Hazardous Substances, European Union Directive 2011/65/EU.

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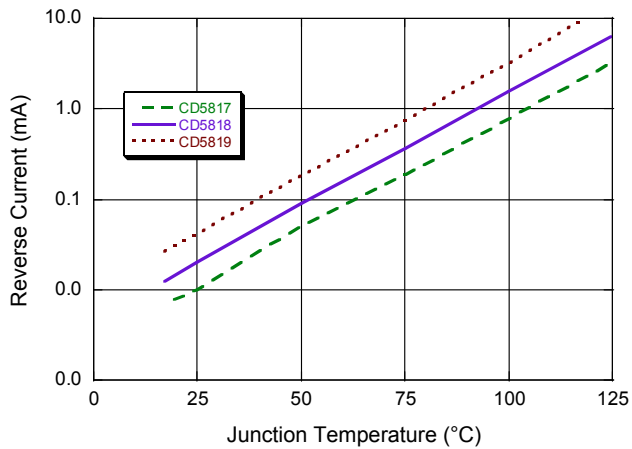
### Absolute Maximum Ratings<sup>4,5</sup>

Parameter	Absolute Maximum
Average Rectified Forward Current	1.0 A @ -55°C
Derating	14.3 mA/°C above +55°C
Operating Temperature	-55°C to +125°C
Storage Temperature	-55°C to +150°C

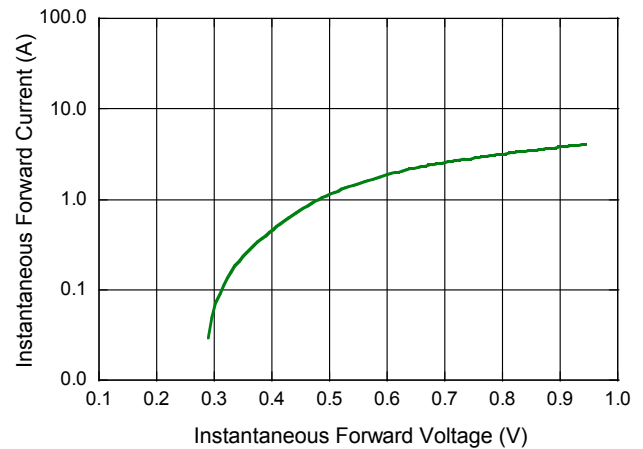
4. Exceeding any one or combination of these limits may cause permanent damage to this device.

5. MACOM does not recommend sustained operation near these survivability limits.

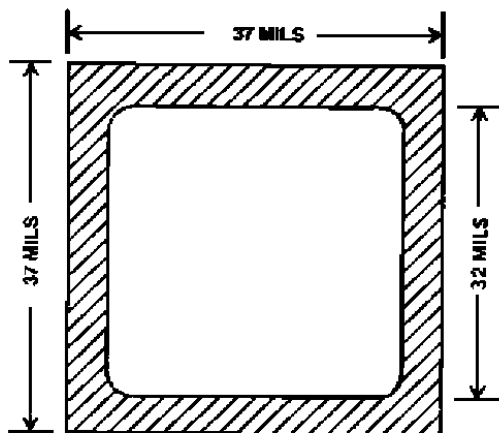
### Reverse Leakage Current @ Rated PIV (pulsed) vs. Temperature



### Forward Current vs. Forward Voltage



### Die



Metallization: Top: (anode) AL  
Back: (cathode) Au  
AL Thickness: 25,000 Å Minimum  
Gold Thickness: 4,000 Å Minimum  
Chip Thickness: 10 mils  
Tolerances: All dimensions  $\pm 2$  mils

**BACKSIDE IS CATHODE**

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