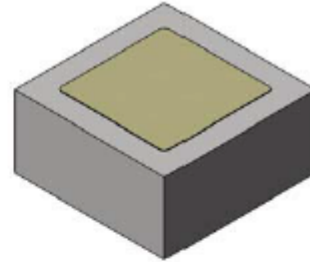


## Features

- Available as JANHCE and JANKCE per MIL-PRF-19500/477
- Electrically equivalent to 1N5807, 1N5809 and 1N5811
- Passivated junction
- Compatible with all wire bonding and die attach techniques with the exception of solder reflow



TYPE	$V_R$	$V_{BR} @ 100 \mu A$	$I_O$ $T_J = 75^\circ C$
CD5807	50 V	60 V	6.0 A
CD5809	100 V	110 V	6.0 A
CD5811	150 V	160 V	6.0 A

## Electrical Characteristics:

CHARACTERISTIC	SYMBOL	MAXIMUM	UNITS
Reverse Current Rated $V_R, T_C = 25^\circ C$	$I_R$	5	$\mu A$
Reverse Current Rated $V_R, T_C = 125^\circ C$	$I_R$	525	$\mu A$
Forward Voltage Drop, $I_F = 4A, T_C = 25^\circ C$	$V_F$	0.875	Volts
Junction Capacitance @ $V_R = 10V$	$C_j$	60	pF

## Reverse Recovery Characteristics:

CHARACTERISTIC	SYMBOL	MAXIMUM	UNITS
Reverse Recovery Time $I_F = 1A, I_{RM} = 1A, I_{(REC)} = 0.1A$	$T_{rr}$	30	ns
Forward Recovery Voltage @ 500 mA $T_r = 8$ ns	$V_{(Peak)}$	2.2	V
Forward Recovery Time, $I_F = 500$ mA	- - -	15	ns

# CD5807, CD5809 & CD5811



Rectifier Diode Chips  
Ultrafast Recovery

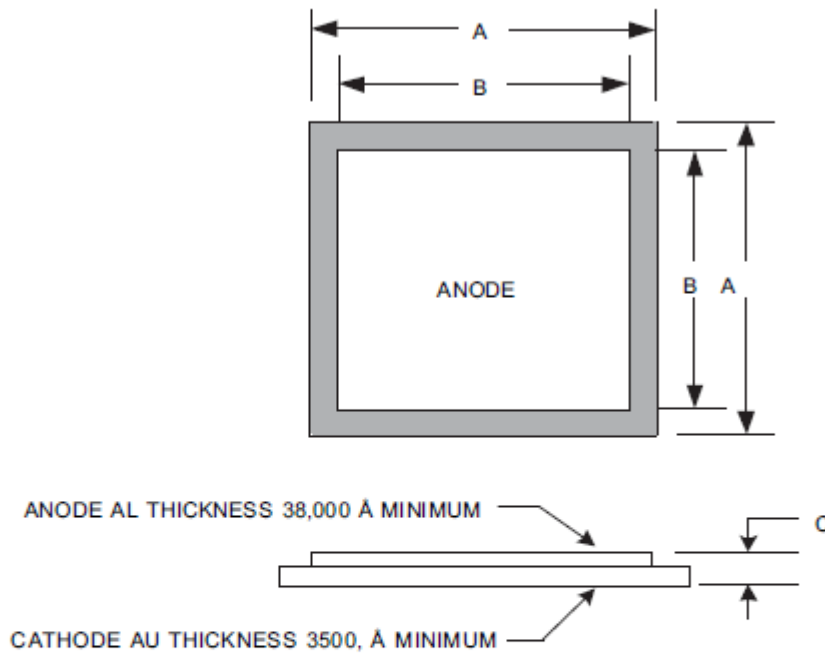
Rev. V1

## Group A Electricals:

DRAWING NUMBER: MIL-S-19500/477, NUMBER: JANHCE1N5807/5809/5811, JANKCE1N5807/5809/5811

SYMBOL	TEST CONDITIONS	MINIMUM	MAXIMUM	UNIT
V <sub>FM1</sub>	I <sub>FM</sub> = 3.0 A, T <sub>p</sub> = 8.3 ms (maximum)		0.865	V
V <sub>FM2</sub>	I <sub>FM</sub> = 4.0 A, T <sub>p</sub> = 8.3 ms (maximum)		0.875	V
V <sub>FM3</sub>	I <sub>FM</sub> = 6.0 A, T <sub>p</sub> = 8.3 ms (maximum)		0.925	V
I <sub>R1</sub>	V <sub>R</sub> = 50 V (CD5807) V <sub>R</sub> = 100 V (CD5809) V <sub>R</sub> = 150 V (CD5811)		5.0	μA
V <sub>(BR)1</sub>	I <sub>(BR)</sub> = 100 μA, T <sub>p</sub> = 20 mS (maximum)	CD5807 CD5809 CD5811	60 110 160	V V V
I <sub>R2</sub>	V <sub>R</sub> = 50 V (CD5807) V <sub>R</sub> = 100 V (CD5809) V <sub>R</sub> = 150 V (CD5811)	T <sub>A</sub> = +125 °C	525	μA
V <sub>FM4</sub>	I <sub>FM</sub> = 4.0 A, T <sub>A</sub> = +125 °C, T <sub>p</sub> = 8.3 mS (maximum)		0.830	V
V <sub>FM5</sub>	I <sub>FM</sub> = 4.0 A, T <sub>A</sub> = -65 °C, T <sub>p</sub> = 8.3 mS (maximum)		1.075	V
V <sub>(BR)2</sub>	I <sub>(BR)</sub> = 100 μA, T <sub>A</sub> = -65 °C, T <sub>p</sub> = 20 ms (maximum)	CD5807 CD5809 CD5811	50 100 150	V V V
t <sub>rr</sub>	I <sub>F</sub> = I <sub>FM</sub> = 1.0 A, I <sub>RM(REC)</sub> = 0.1 A, di/dt = 100 A/us (minimum)		30	nS
C <sub>J</sub>	V <sub>R</sub> = 10 V, f = 1 MHz, V <sub>sig</sub> = 50 mV (P-P) (maximum)		60	pF
V <sub>FRM</sub>	t <sub>r</sub> = 8 nS, I <sub>FM</sub> = 500 mA		2.2	V
t <sub>fr</sub>	t <sub>p</sub> ≥ 20 nS, t <sub>r</sub> = 8 nS, V <sub>FR</sub> = 1.1 x V <sub>F</sub> , I <sub>FM</sub> = 500 mA		15	nS

## Outline Drawing



Ltr	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
A	.068	.072	1.73	1.83
B	.057	.061	1.45	1.55
C	.008	.012	0.20	0.30

### Notes:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.

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