

1N5807
1N5809
1N5811
JANHCE and JANKCE
JANHCF and JANKCF

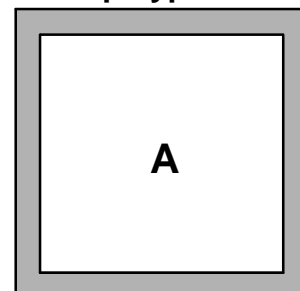
FEATURES:

- Chip Outline Dimensions: 68 x 68 mils
- Chip Thickness: 8 to 12 mils
- Anode Metallization: Aluminum
- Metallization Thickness: 70,000Å Nominal
- Bonding Area: 42 x 42 mils Min.
- Back Metallization: Gold-3000Å Nominal
- Junction Passivated with Thermal Silicon Dioxide - Planar Design
- Backside Available with Solderable Ag Backside as JANHCF or JANKCF

6 AMPS
FAST RECOVERY
RECTIFIER CHIP
50 - 150 VOLTS

TYPE	V _R	V _{BR}	I _O T _j = 75°C
JANHCE1N5807	50V	60V	6.0A
JANHCE1N5809	100V	110V	6.0A
JANHCE1N58011	150V	160V	6.0A
JANKCE1N5807	50V	60V	6.0A
JANKCE1N5809	100V	110V	6.0A
JANKCE1N58011	150V	160V	6.0A

Chip Type: RA



ELECTRICAL CHARACTERISTICS:

CHARACTERISTIC	SYMBOL	TYPICAL	MAX.	UNITS
Reverse Current Rated V _R , T _C = 25°C	I _R	.01	5	μA
Reverse Current Rated V _R , T _C = 100°C	I _R	1.0	150	μA
Forward Voltage Drop I _F = 4A, T _C = 25°C	V _F	.84	.875	Volts
Junction Capacitance @ V _R = 10V	C _j	45	60	Pf

REVERSE RECOVERY CHARACTERISTICS:

CHARACTERISTIC	SYMBOL	TYPICAL	MAX.	UNITS
Reverse Recovery Time I _F = 1A, I _R = 1A, I _{RR} = 0.1A	T _{rr}	2.5	30	ns
Forward Recovery Voltage @ 1A Tr = 8ns	V _{rr}	1.5	2.2	V
Forward Recovery Time I _{FM} = 500 mA			15	ns

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GROUP A ELECTRICALS

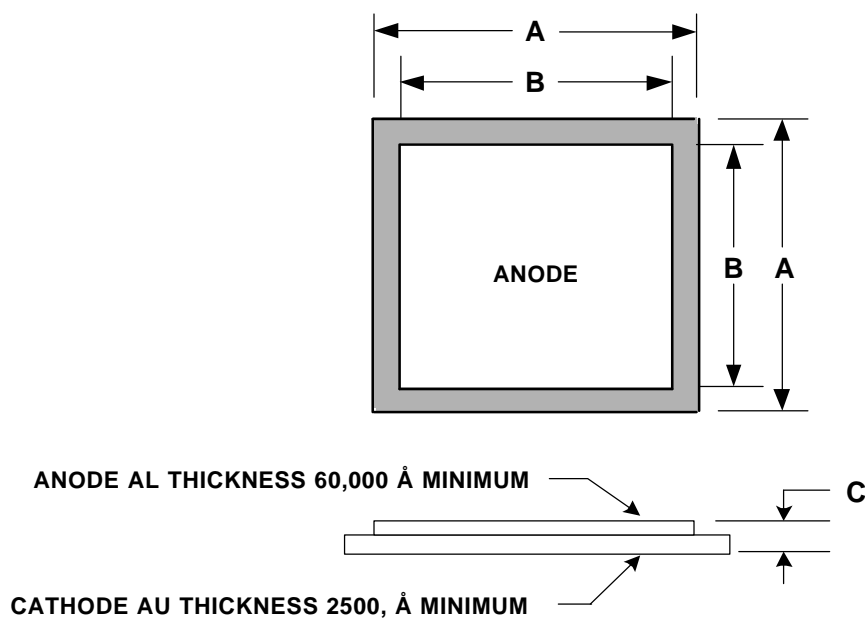
DRAWING NUMBER: MIL-S-19500/477 NUMBER: JANHCE1N5807/5809/5811 D00G1N5807/5809/5811KC

TEST #	SYMBOL	TEST CONDITIONS	MINIMUM	MAXIMUM	UNIT
1		SUBGROUP A2			
2					
3	V _{FM1}	I _{FM} = 4.0 A		.875	V
4	V _{FM2}	I _{FM} = 6.0 A		.925	V
5	I _{R1}	V _R = 50 V (5807) V _R = 100 V (5809) V _R = 150 V (5811)		5.0	μA
6	V _{(BR)1}	I _(BR) = 100 μA 1N5807 1N5809 1N5811	60 110 160		V V V
7					
8		SUBGROUP A3			
9	I _{R2}	V _R = 50 V (5807) V _R = 100 V (5809) V _R = 150 V (5811) T _A = + 100°C		150	μA
10	V _{FM3}	I _{FM} = 4.0 A T _A = + 100°C		0.800	V
11	V _{FM4}	I _{FM} = 4.0 A T _A = - 65°C		1.075	V
12	V _{(BR)2}	I _(BR) = 100 μA T _A = - 65°C 1N5807 1N5809 1N5811	50 100 150		V V V
13					
14		SUBGROUP 4			
15	trr	I _F = I _R = 1.0 A I _{RM} (REC) = 0.1 A di/dt = 100 A/us (min)		30	nS
16	C _J	V _R = 10 V, f = 1 Mhz V _{sig} = 50 mV (P-P) (MAX)		60	pF
17	V _{FRM}	t _r = 8 nS I _{FM} = 500 mA		2.2	V
18	t _{fr}	t _p ≥ 20 nS t _r 8 nS V _{FR} = 1.1 x V _F I _{FM} = 500 mA(pk)		15	nS

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DIE DIMENSIONS:

MIL-PRF-19500/477C



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Ltr	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
A	.066	.070	1.68	1.78
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.

Figure 7. JANC (E-version) die dimensions.