

**1N5802**  
**1N5804**  
**1N5806**  
**JANHCE and JANKCE**  
**JANHCF and JANKCF**

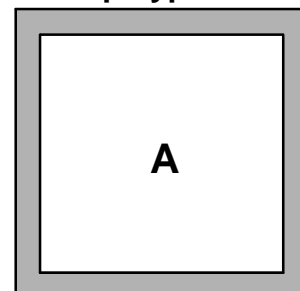
## FEATURES:

- Chip Outline Dimensions: 41 x 41 mils
- Chip Thickness: 8 to 12 mils
- Anode Metallization: Aluminum
- Metallization Thickness: 50,000Å Nominal
- Bonding Area: 23 x 23 mils Min.
- Back Metallization: Gold
- Junction Passivated with Thermal Silicon Dioxide - Planar Design
- Backside Available with Solderable Ag Backside as JANHCF or JANKCF

**2.5 AMPS**  
**FAST RECOVERY**  
**RECTIFIER CHIP**  
**50 - 150 VOLTS**

TYPE	V <sub>R</sub>	V <sub>BR</sub>	I <sub>O</sub> T <sub>j</sub> = 75°C
JANHCE1N5802	50V	60V	2.5A
JANHCE1N5804	100V	110V	2.5A
JANHCE1N5806	150V	160V	2.5A
JANKCE1N5802	50V	60V	2.5A
JANKCE1N5804	100V	110V	2.5A
JANKCE1N5806	150V	160V	2.5A

Chip Type: RH



## ELECTRICAL CHARACTERISTICS:

CHARACTERISTIC	SYMBOL	TYPICAL	MAX.	UNITS
Reverse Current Rated V <sub>R</sub> , T <sub>C</sub> = 25°C	I <sub>R</sub>	.01	1	μA
Reverse Current Rated V <sub>R</sub> , T <sub>C</sub> = 100°C	I <sub>R</sub>	1.0	50	μA
Forward Voltage Drop I <sub>F</sub> = 1A, T <sub>C</sub> = 25°C	V <sub>F</sub>	.80	.875	Volts
Junction Capacitance @ V <sub>R</sub> = 10V	C <sub>j</sub>	15	25	Pf

## REVERSE RECOVERY CHARACTERISTICS:

CHARACTERISTIC	SYMBOL	TYPICAL	MAX.	UNITS
Reverse Recovery Time I <sub>F</sub> = 0.5A, I <sub>R</sub> = 0.5A, I <sub>RR</sub> = 0.05A	T <sub>rr</sub>	20	25	ns
Forward Recovery Voltage @ 1A T <sub>rr</sub> = 8ns	V <sub>rr</sub>	1.5	2.2	V
Forward Recovery Time I <sub>FM</sub> = 250 mA			15	ns

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## GROUP A ELECTRICALS

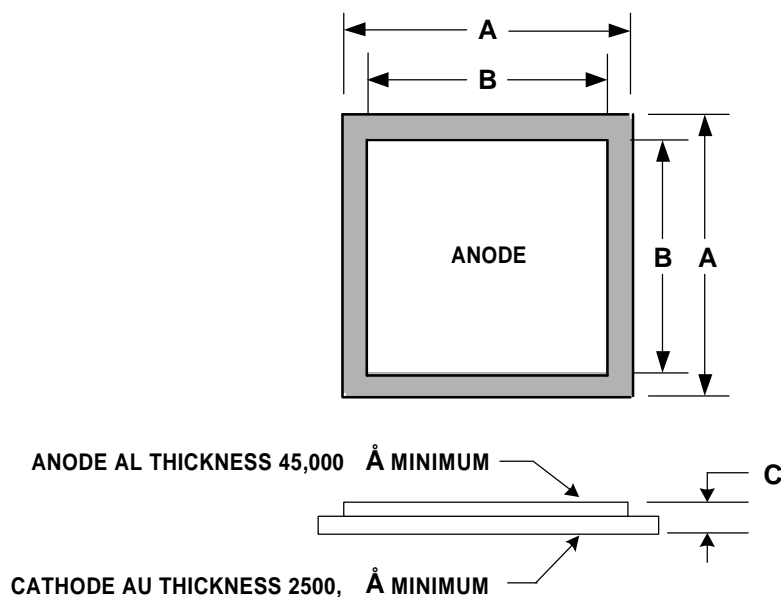
DRAWING NUMBER: MIL-S-19500/477 NUMBER: JANKCE1N5802/5804/5806 D00G1N5802/5804/5806KC

TEST #	SYMBOL	TEST CONDITIONS	MINIMUM	MAXIMUM	UNIT
1		SUBGROUP A2			
2					
3	V <sub>FM1</sub>	I <sub>FM</sub> = 1.0 A		.875	V
4	V <sub>FM2</sub>	I <sub>FM</sub> = 2.5 A		.975	V
5	I <sub>R1</sub>	V <sub>R</sub> = 50 V (5802) V <sub>R</sub> = 100 V (5804) V <sub>R</sub> = 150 V (5806)		1.0	μA
6	V <sub>(BR)1</sub>	I <sub>(BR)</sub> = 100 μA	1N5802 1N5804 1N5806	60 110 160	V V V
7					
8		SUBGROUP A3			
9	I <sub>R2</sub>	V <sub>R</sub> = 50 V (5802) V <sub>R</sub> = 100 V (5804) V <sub>R</sub> = 150 V (5806)	T <sub>A</sub> = + 100°C	50	μA
10	V <sub>FM3</sub>	I <sub>FM</sub> = 1.0 A	T <sub>A</sub> = + 100°C	0.800	V
11	V <sub>FM4</sub>	I <sub>FM</sub> = 1.0 A	T <sub>A</sub> = - 65°C	1.075	V
12	V <sub>(BR)2</sub>	I <sub>(BR)</sub> = 100 μA	T <sub>A</sub> = - 65°C	1N5802 1N5804 1N5806	50 100 150
13					
14		SUBGROUP 4			
15	t <sub>rr</sub>	I <sub>F</sub> = I <sub>R</sub> = 0.5 A I <sub>RM</sub> (REC) = 0.05 A di/dt = 65 A/us (min)		25	nS
16	C <sub>J</sub>	V <sub>R</sub> = 10 V, f = 1 Mhz V <sub>sig</sub> = 50 mV (P-P) (MAX)		25	pF
17	V <sub>FRM</sub>	t <sub>r</sub> = 8 nS I <sub>FM</sub> = 250 mA		2.2	V
18	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> = 250 mA(pk)		15	nS

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## DIE DIMENSIONS:

MIL-PRF-19500/477C



1N5802, 1N5804, 1N5806

Ltr	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
A	.039	.043	1.00	1.09
B	.031	.035	0.79	0.89
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.