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

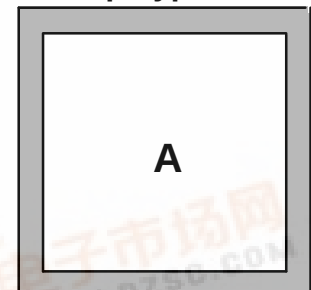
FEATURES:

- 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_R	V_{BR}	I_O $T_j = 75^\circ\text{C}$
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_R , $T_C = 25^\circ\text{C}$	I_R	.01	1	μA
Reverse Current Rated V_R , $T_C = 100^\circ\text{C}$	I_R	1.0	50	μA
Forward Voltage Drop $I_F = 1\text{A}$, $T_C = 25^\circ\text{C}$	V_F	.80	.875	Volts
Junction Capacitance @ $V_R = 10\text{V}$	C_j	15	25	Pf

REVERSE RECOVERY CHARACTERISTICS:

CHARACTERISTIC	SYMBOL	TYPICAL	MAX.	UNITS
Reverse Recovery Time $I_F = 0.5\text{A}$, $I_R = 0.5\text{A}$, $I_{RR} = 0.05\text{A}$	T_{rr}	20	25	ns
Forward Recovery Voltage @ 1A $T_{rr} = 8\text{ns}$	V_{rr}	1.5	2.2	V
Forward Recovery Time $I_{FM} = 250\text{ mA}$			15	ns



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GROUP A ELECTRICALS

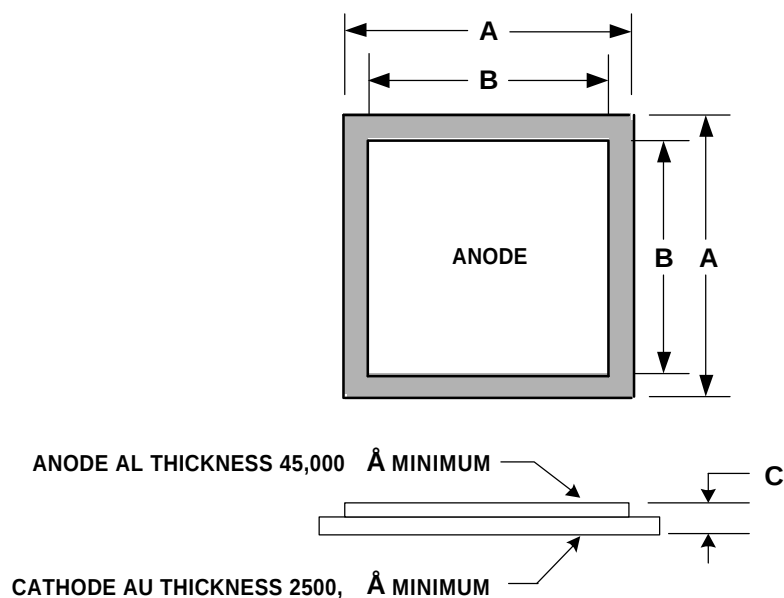
DRAWING NUMBER: MIL-S-19500/477 NUMBER: JANKCE1N5802/5804/5806 D00G1N5802/5804/5806KC

TEST #	SYMBOL	TEST CONDITIONS	MINIMUM	MAXIMUM	UNIT
1		SUBGROUP A2			
2					
3	V _{FM1}	I _{FM} = 1.0 A		.875	V
4	V _{FM2}	I _{FM} = 2.5 A		.975	V
5	I _{R1}	V _R = 50 V (5802) V _R = 100 V (5804) V _R = 150 V (5806)		1.0	μA
6	V _{(BR)1}	I _(BR) = 100 μA 1N5802 1N5804 1N5806	60 110 160		V V V
7					
8		SUBGROUP A3			
9	I _{R2}	V _R = 50 V (5802) V _R = 100 V (5804) V _R = 150 V (5806) T _A = + 100°C		50	μA
10	V _{FM3}	I _{FM} = 1.0 A T _A = + 100°C		0.800	V
11	V _{FM4}	I _{FM} = 1.0 A T _A = - 65°C		1.075	V
12	V _{(BR)2}	I _(BR) = 100 μA T _A = - 65°C 1N5802 1N5804 1N5806	50 100 150		V V V
13					
14		SUBGROUP 4			
15	trr	I _F = I _R = 0.5 A I _{RM} (REC) = 0.05 A dI/dt = 65 A/us (min)		25	nS
16	C _J	V _R = 10 V, f = 1 Mhz V _{sig} = 50 mV (P-P) (MAX)		25	pF
17	V _{FRM}	t _r = 8 nS I _{FM} = 250 mA		2.2	V
18	tfr	t _p ≥ 20 nS t _r 8 nS V _{FR} = 1.1 x V _F I _{FM} = 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.