PPC, Inc.
Microsemi
Progress Powered by Technology

7516 Central Industrial Drive
Riviera Beach, Florida
33404
PHONE: (561) 842-0305
FAX: (561) 845-7813

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

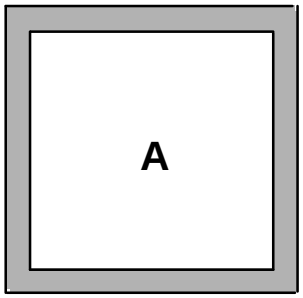
FEATURES:

- Chip Outline Dimensions: 68 x 68 mils
- Chip Thickness: 8 to 12 mils
- Anode Metallization: Aluminum
- Metallization Thickness: 70,000Ã Nominal
- Bonding Area: 42 x 42 mils Min.
- Back Metallization: Gold-3000Ã 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 Tj = 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	Cj	45	60	Pf

REVERSE RECOVERY CHARACTERISTICS:

CHARACTERISTIC	SYMBOL	TYPICAL	MAX.	UNITS
Reverse Recovery Time I_F = 1A, I_R = 1A, I_{RR} = 0.1A	Trr	2.5	30	ns
Forward Recovery Voltage @ 1A Tr = 8ns	Vrr	1.5	2.2	V
Forward Recovery Time I_{FM} = 500 mA			15	ns

PPC, Inc.
Microsemi
Progress Powered by Technology

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

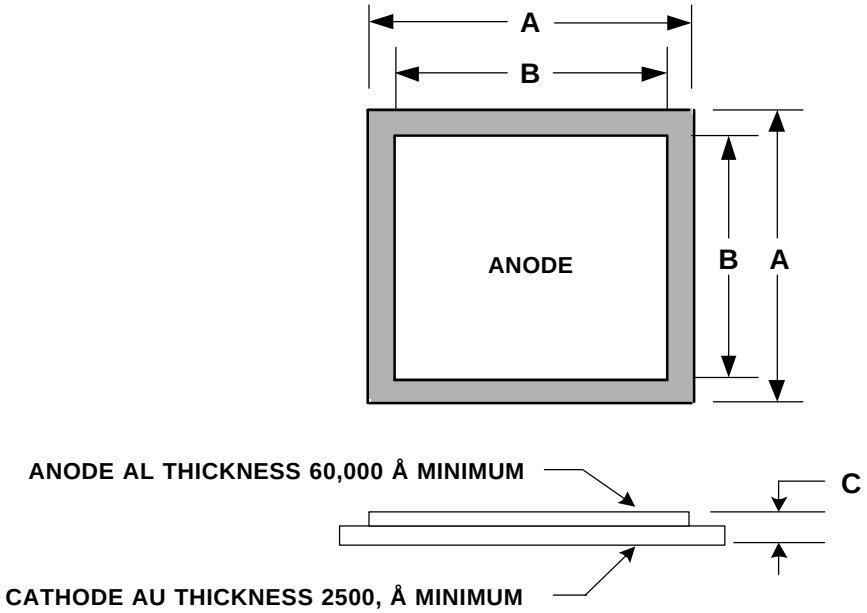
GROUP A ELECTRICALS

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	tfr	$t_p \geq$ 20 nS t_r 8 nS V_{FR} = 1.1 x V_F I_{FM} = 500 mA(pk)			15	nS

DIE DIMENSIONS:

MIL-PRF-19500/477C



1N5807, 1N5809, 1N5811

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.