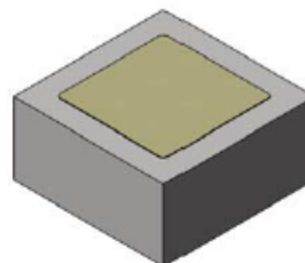


Features

- 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	μA
Reverse Current Rated V_R , $T_C = 125^\circ C$	I_R	525	μA
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:

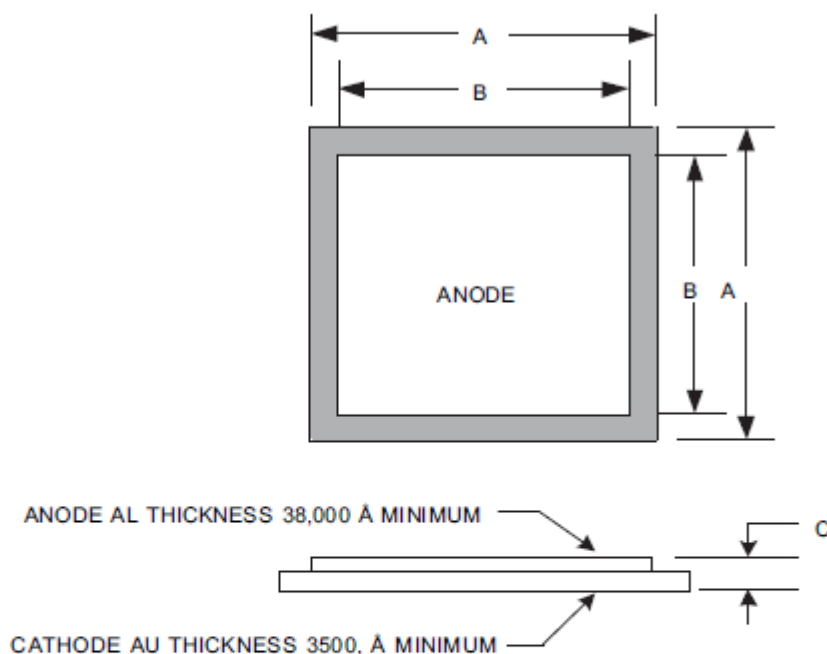
CHARACTERISTIC	SYMBOL	MAXIMUM	UNITS
Reverse Recovery Time $I_F = 1A$, $I_{RM} = 1A$, $I_{(REC)} = 0.1A$	T_{rr}	30	ns
Forward Recovery Voltage @ 500 mA $T_r = 8$ ns	$V_{(Peak)}$	2.2	V
Forward Recovery Time, $I_F = 500$ mA	- - -	15	ns

Group A Electricals:

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

SYMBOL	TEST CONDITIONS	MINIMUM	MAXIMUM	UNIT
V_{FM1}	$I_{FM} = 3.0 \text{ A}$, $T_p = 8.3 \text{ ms}$ (maximum)		0.865	V
V_{FM2}	$I_{FM} = 4.0 \text{ A}$, $T_p = 8.3 \text{ ms}$ (maximum)		0.875	V
V_{FM3}	$I_{FM} = 6.0 \text{ A}$, $T_p = 8.3 \text{ ms}$ (maximum)		0.925	V
I_{R1}	$V_R = 50 \text{ V}$ (CD5807) $V_R = 100 \text{ V}$ (CD5809) $V_R = 150 \text{ V}$ (CD5811)		5.0	μA
$V_{(BR)1}$	$I_{(BR)} = 100 \mu\text{A}$, $T_p = 20 \text{ mS}$ (maximum) CD5807 CD5809 CD5811	60 110 160		V V V
I_{R2}	$V_R = 50 \text{ V}$ (CD5807) $V_R = 100 \text{ V}$ (CD5809) $V_R = 150 \text{ V}$ (CD5811) $T_A = +125^\circ\text{C}$		525	μA
V_{FM4}	$I_{FM} = 4.0 \text{ A}$, $T_A = +125^\circ\text{C}$, $T_p = 8.3 \text{ mS}$ (maximum)		0.830	V
V_{FM5}	$I_{FM} = 4.0 \text{ A}$, $T_A = -65^\circ\text{C}$, $T_p = 8.3 \text{ mS}$ (maximum)		1.075	V
$V_{(BR)2}$	$I_{(BR)} = 100 \mu\text{A}$, $T_A = -65^\circ\text{C}$, $T_p = 20 \text{ ms}$ (maximum) CD5807 CD5809 CD5811	50 100 150		V V V
t_{rr}	$I_F = I_{FM} = 1.0 \text{ A}$, $I_{RM}(\text{REC}) = 0.1 \text{ A}$, $di/dt = 100 \text{ A/us}$ (minimum)		30	nS
C_J	$V_R = 10 \text{ V}$, $f = 1 \text{ MHz}$, $V_{sig} = 50 \text{ mV}$ (P-P) (maximum)		60	pF
V_{FRM}	$t_r = 8 \text{ nS}$, $I_{FM} = 500 \text{ mA}$		2.2	V
t_{fr}	$t_p \geq 20 \text{ nS}$, $t_r = 8 \text{ nS}$, $V_{FR} = 1.1 \times V_F$, $I_{FM} = 500 \text{ mA}$		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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