

TECHNICAL DATA
DATA SHEET 5498, REV -

ULTRA FAST RECOVERY SILICON RECTIFIER DIE

FEATURES / BENEFITS:

- ✓ Die fabricated on a MIL-PRF-19500 JANKC qualified manufacturing line
- ✓ Class H and class K element evaluation per MIL-PRF-19500/477
- ✓ All ratings are @ $T_A = 25\text{ }^\circ\text{C}$ unless otherwise specified

ELECTRICAL CHARACTERISTICS:

Maximum Ratings:

Characteristics	Symbol	Condition	Min.	Max.	Units
Peak Inverse Voltage DC Blocking Voltage JANK(H)CF1N5802 JANK(H)CF1N5804 JANK(H)CF1N5806	V_{RWM} V_R	-		50 100 150	V
Breakdown Voltage JANK(H)CF1N5802 JANK(H)CF1N5804 JANK(H)CF1N5806	V_{BR1}	@ $I_{BR}=100\mu\text{A}$	60 110 160		V
Max. Average Forward Current	$I_{F(AV)}$	@ 55°C		1.0	A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, sine pulse ⁽¹⁾		35	A
Max. Junction Temperature	T_J	-	-55	+175	$^\circ\text{C}$
Max. Storage Temperature	T_{stg}	-	-55	+175	$^\circ\text{C}$

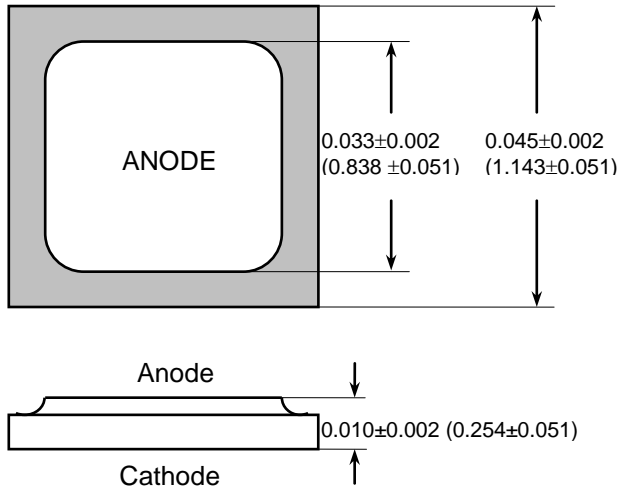
⁽¹⁾ Tested in SHD package

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_{F1}	1A, pulse, $T_J = 25\text{ }^\circ\text{C}$	0.875	V
		2.5A, pulse, $T_J = 25\text{ }^\circ\text{C}$	0.975	V
	V_{F3}	1A, pulse, $T_J = 125\text{ }^\circ\text{C}$	0.800	V
	V_{F4}	1A, pulse, $T_J = -55\text{ }^\circ\text{C}$	1.075	V
Max. Reverse Current	I_{R1}	$V_R = V_{RWM}$, pulse, $T_J = 25\text{ }^\circ\text{C}$	1.0	μA
	I_{R2}	$V_R = V_{RWM}$, pulse, $T_J = 125\text{ }^\circ\text{C}$	175	μA
Breakdown Voltage JANK(H)CF1N5802 JANK(H)CF1N5804 JANK(H)CF1N5806	V_{BR2}	@ $I_{BR}=100\mu\text{A}$, $T_J = -55\text{ }^\circ\text{C}$	50 100 150	V
Reverse Recovery Time	t_{rr}	$I_F = I_R = 0.5\text{A}$, $I_{RM} = 0.05\text{A}$	25	ns
Max. Junction Capacitance	C_T	$V_R = 10\text{V}$, $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$, $V_{SIG} = 50\text{mV}$ (p-p)	25	pF

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PACKAGE DIMENSIONS (inches/mm):



Top anode and bottom cathode

Top Metal Ti (0.3 kA) / Al (34 kA minimum)
Bottom Metal Ti (1.2 kA) / Ni (1.8 kA) / Au (3.6 kA minimum)

PART ORDERING INFORMATION:

JAN_xCF1NXXXX
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 Quality Level *Part Number*

Suffix	Part Number	Description
H	JANHCF5806	Class H Level
K	JANKCF5806	Class K Level

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