

1N6704
1N6704R

Features

- passivated mesa structure for very low leakage currents
- Epitaxial structure minimizes forward voltage drop
- Hermetically sealed surface mount power package
- Low package inductance
- Very low thermal resistance
- Available as standard polarity (strap-to-anode, 1N6704) and reverse polarity (strap-to-cathode: 1N6704R)

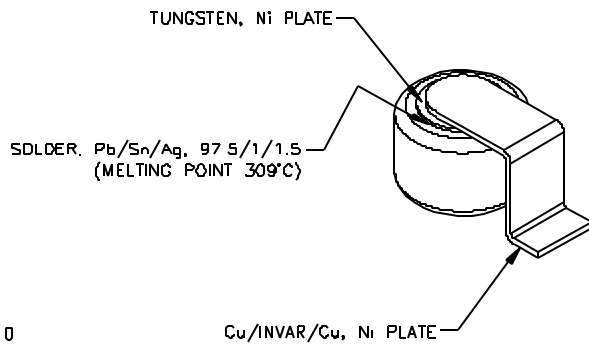
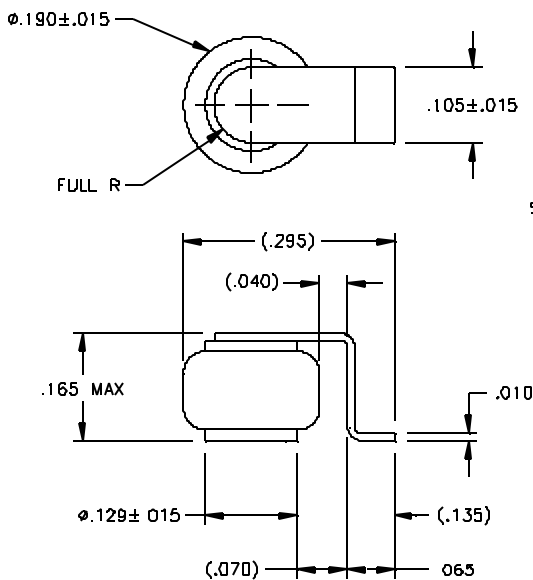
200 Volts
20 Amps
35 ns

**ULTRAFAST
 RECTIFIER**

Maximum Ratings @ 25°C (unless otherwise specified)

DESCRIPTION	SYMBOL	MAX.	UNIT
Peak Repetitive Reverse Voltage	V_{RRM}	200	Volts
Working Peak Reverse Voltage	V_{RWM}	200	Volts
DC Blocking Voltage	V_R	200	Volts
Average Rectified Forward Current, $T_c \leq 125^\circ\text{C}$	$I_{F(ave)}$	20	Amps
Nonrepetitive Peak Surge Current, $t_p = 8.3$ ms, half-sinewave	I_{FSM}	100	Amps
Junction Temperature Range	T_j	-65 to +175	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-65 to +175	$^\circ\text{C}$
Thermal Resistance, Junction to Case:	θ_{JC}	2.0 (typ. 1.6)	$^\circ\text{C/W}$

Mechanical Outline



G-BODY (DO-217AA)

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Electrical Parameters

PRELIMINARY

DESCRIPTION	SYMBOL	CONDITIONS	MIN	TYP.	MAX	UNIT
Reverse (Leakage) Current	IR ₂₅	VR= 200 Vdc, Tc= 25°C		0.12	3	µA
	IR ₁₂₅	VR= 200 Vdc, Tc= 125°C		60	150	µA
Forward Voltage pulse test, pw= 300 µs d/c≤ 2%	VF1	IF= 10 mA, Tc= 25°C		500	-	mV
	VF2	IF= 100 mA, Tc= 25°C		590	-	mV
	VF3	IF= 3 A, Tc= 25°C		810	-	mV
	VF4	IF= 5 A, Tc= 25°C		860	910	mV
	VF5	IF= 10 A, Tc= 25°C		960	1020	mV
	VF6	IF= 20 A, Tc= 25°C		1100	1250	mV
	VF7	IF= 40 A, Tc= 25°C		930	1000	mV
	VF8	IF= 5 A, Tc= -55°C		1050	1200	mV
	VF9	IF= 10 A, Tc= -55°C		1150	1300	mV
	VF10	IF= 20 A, Tc= -55°C		1300	1450	mV
	VF11	IF= 5 A, Tc= 125°C		720	800	mV
	VF12	IF= 10 A, Tc= 125°C		830	910	mV
	VF13	IF= 20 A, Tc= 125°C		980	1070	mV
Junction Capacitance	Cj1	VR= 10 Vdc		80	100	pF
Breakdown Voltage	BVR	IR= 100 µA, Tc= 25°C	220	250	n/a	V
Reverse Recovery Time	trr	IF= .5 A, IR= 1 A, IRR= .25 A		25	35	ns

typical VF

