

1N6710, 1N6710R
1N6711, 1N6711R

Features

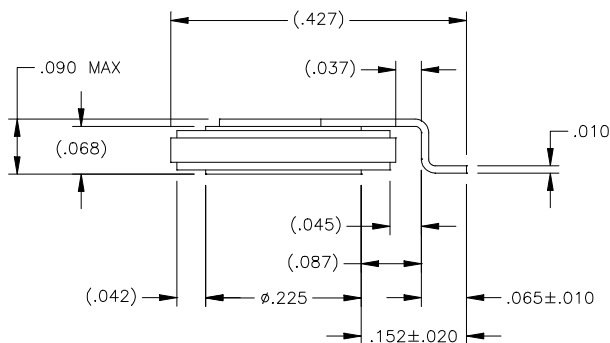
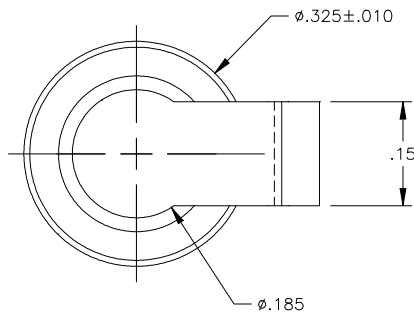
- passivated mesa structure for very low leakage currents
- Hermetically sealed, low profile ceramic surface mount power package
- Low package inductance
- Very low thermal resistance
- Available as standard polarity (strap-to-anode: 1N6710 and 1N6711) and reverse polarity (strap-to-cathode: 1N6710R and 1N6711R)

100 and 200 Volts
40 ns, 50 Amps

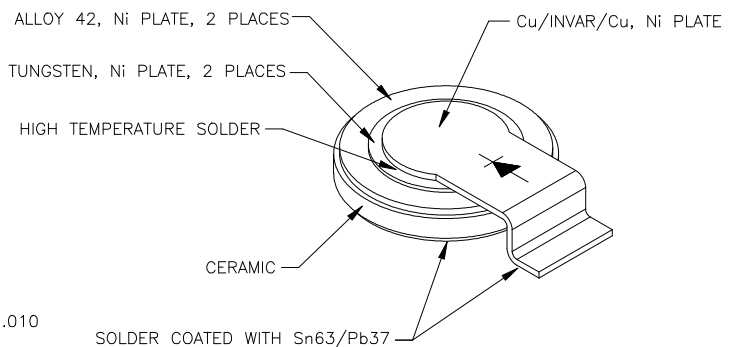
ULTRAFAST
RECTIFIER

Maximum Ratings @ 25°C (unless otherwise specified)

DESCRIPTION		SYMBOL	MAX.	UNIT
Peak Repetitive Reverse Voltage	1N6710,R 1N6711,R	V_{RRM}	100 200	Volts
Working Peak Reverse Voltage	1N6710,R 1N6711,R	V_{RWM}	100 200	Volts
DC Blocking Voltage	1N6710,R 1N6711,R	V_R	100 200	Volts
Average Rectified Forward Current, $T_c \leq 125^\circ\text{C}$		$I_{F(ave)}$	50	Amps
Nonrepetitive Peak Surge Current, $t_p = 8.3$ ms, half-sinewave		I_{FSM}	375	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}	0.65	$^\circ\text{C/W}$



Mechanical Outline
Slugger™1 (DO-217AA)



Note: Polarity symbol shown applies to 1N6710 and 1N6711

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PRELIMINARY

Electrical Parameters

DESCRIPTION	SYMBOL	CONDITIONS		MIN	TYP.	MAX	UNIT
Reverse (Leakage) Current	IR ₂₅	VR= rated VR, Tc= 25°C	ALL		.5	10	μA
	IR ₁₂₅	VR= rated VR, Tc= 125°C	ALL		.15	1	mA
Forward Voltage pulse test, pw= 300 μs d/c≤ 2%	VF1	IF= 1 A, Tc= 25°C	ALL		0.65	-	V
	VF2	IF= 10 A, Tc= 25°C	ALL		0.81	0.89	V
	VF3	IF= 30 A, Tc= 25°C	ALL		0.92	1.0	V
	VF4	IF= 50 A, Tc= 25°C	ALL		0.98	1.1	V
	VF5	IF= 1 A, Tc= 125°C	ALL		0.48	-	V
	VF6	IF= 10 A, Tc= 125°C	ALL		0.68	0.79	V
	VF7	IF= 30 A, Tc= 125°C	ALL		0.82	-	V
	VF8	IF= 50 A, Tc= 125°C	ALL		0.9	1.05	V
	VF9	IF= 1 A, Tc= -55°C	ALL		0.8	-	V
	VF10	IF= 10 A, Tc= -55°C	ALL		0.92	1.0	V
	VF11	IF= 30 A, Tc= -55°C	ALL		1.0	-	V
	VF12	IF= 50 A, Tc= -55°C	ALL		1.05	1.2	V
	VF	IF= 100 A, Tc= 25°C	ALL		1.1	-	V
Temperature Coefficient of Forward Voltage	dVF/dT	IF= 1 A (-55°C to 125°C, ave.) IF= 10 A (-55°C to 125°C, ave) IF= 30 A (-55°C to 125°C, ave)	ALL		1.8 1.35 1		mV/°C
Junction Capacitance	Cj1	VR= 10 Vdc VR= 5 Vdc	ALL		350 440	500	pF
Breakdown Voltage	BVR	IR= 100 μA, Tc= 25°C	1N6710,R	100	200		V
			1N6711,R	200	300		V
Reverse Recovery Time	trr	IF= .5 A, IR= 1 A, IRR= .25 A	ALL			40	ns