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 U.S.A.

# Silicon RECTIFIERS

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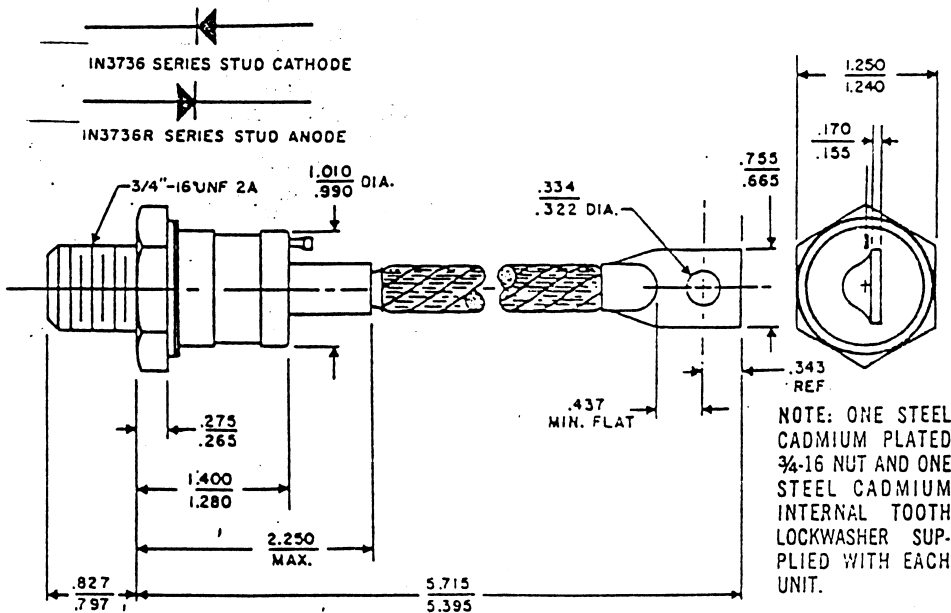
## Maximum Allowable Ratings

TYPES*	REPETITIVE PEAK REVERSE VOLTAGE (PRV) <sup>(1)</sup>	TRANSIENT PEAK REVERSE VOLTAGE (non-recurrent 5 msec max) <sup>(2)</sup>	D.C. BLOCKING VOLTAGE <sup>(3)</sup>	FULL LOAD REVERSE CURRENT (full-cycle average, 130°C case temperature, single phase)
1N3735	100 Volts	200 Volts	100 Volts	16.0 mA
1N3736	200	300	200	16.0
1N3737	300	400	300	16.0
1N3738	400	525	400	16.0
1N3739	500	650	500	13.0
1N3740	600	800	600	12.0
	700	925	700	11.0
1N3741	800	1050	800	9.0
	900	1175	900	8.0
1N3742	1000	1300	1000	7.0
	1100	1400	1100	7.0
	1200	1500	1200	7.0

\*Models listed are stud cathode (forward polarity) types. Specify 1N37...R for stud anode (reverse polarity) types. Ratings and specifications are for frequencies from 50 to 400 Hz, except where noted otherwise.

Average Forward Current, $I_F$ ( $T_c = +130^\circ\text{C}$ , single-phase, half sine wave)	250 Amperes
Peak One-Cycle Surge Current (non-repetitive), $I_{FSM}$ (surge)	4500 Amperes
Minimum $I^2t$ Rating (see Curve 5), $t \geq 1\text{msec}$ . (non-repetitive)	31,360 Ampere <sup>2</sup> seconds
Forward Peak Voltage Drop, $V_{FM}$ ( $T_c = +130^\circ\text{C}$ , $I_F = 250$ amps avg.)	1.3 Volts
Thermal Resistance, $\theta_{J-C}$	DC..... 0.18°C/Watt
	1 $\phi$ & 3 $\phi$ (50 to 400 Hz)..... 0.24°C/Watt
	6 $\phi$ (50 to 400 Hz)..... 0.30°C/Watt
Storage and Operating Junction Temperature, $T_J$	-40°C to +200°C
Stud Torque <sup>(4)</sup>	.275 Lb-in (Min), 325 Lb-in (Max)
	320 Kg-cm (Min), 350 Kg-cm (Max)

## OUTLINE DRAWING



## CONVERSION TABLE

Inches	Millimeters
.155	3.936
.170	4.318
.265	6.730
.275	6.985
.322	8.178
.334	8.483
.343	8.712
.437	11.099
.665	16.890
.755	19.177
.797	20.243
.827	21.006
.990	25.145
1.010	25.654
1.240	31.495
1.250	31.750
1.280	32.511
1.400	35.560
2.250	57.149
5.395	137.031
5.715	145.160

Device Configuration complies with EIA Registered Outline DO-9