

300U SERIES

300 AMPS AVERAGE
100-1600 VOLTS PEAK

Features:

- High current carrying capability
- High Voltage ratings up to 1600V
- High surge current capabilities
- Stud cathode version



ELECTRICAL CHARACTERISTICS AND RATINGS

Parameter	Symbol	Value	Units	Conditions
Max. average forward current	$I_{F(AV)}$	300	A	$T_c = 125^\circ\text{C}$
Max. peak forward voltage drop	V_{FM}	1.40	V	Rated $I_{F(peak)}$
Max. peak one cycle non-repetitive surge current	I_{FSM}	5000	A	10msec
Max. repetitive peak forward current	I_{FRM}	1400	A	
Max. I^2t rating (non-repetitive) for 10msec	I^2t	125	kA^2sec	

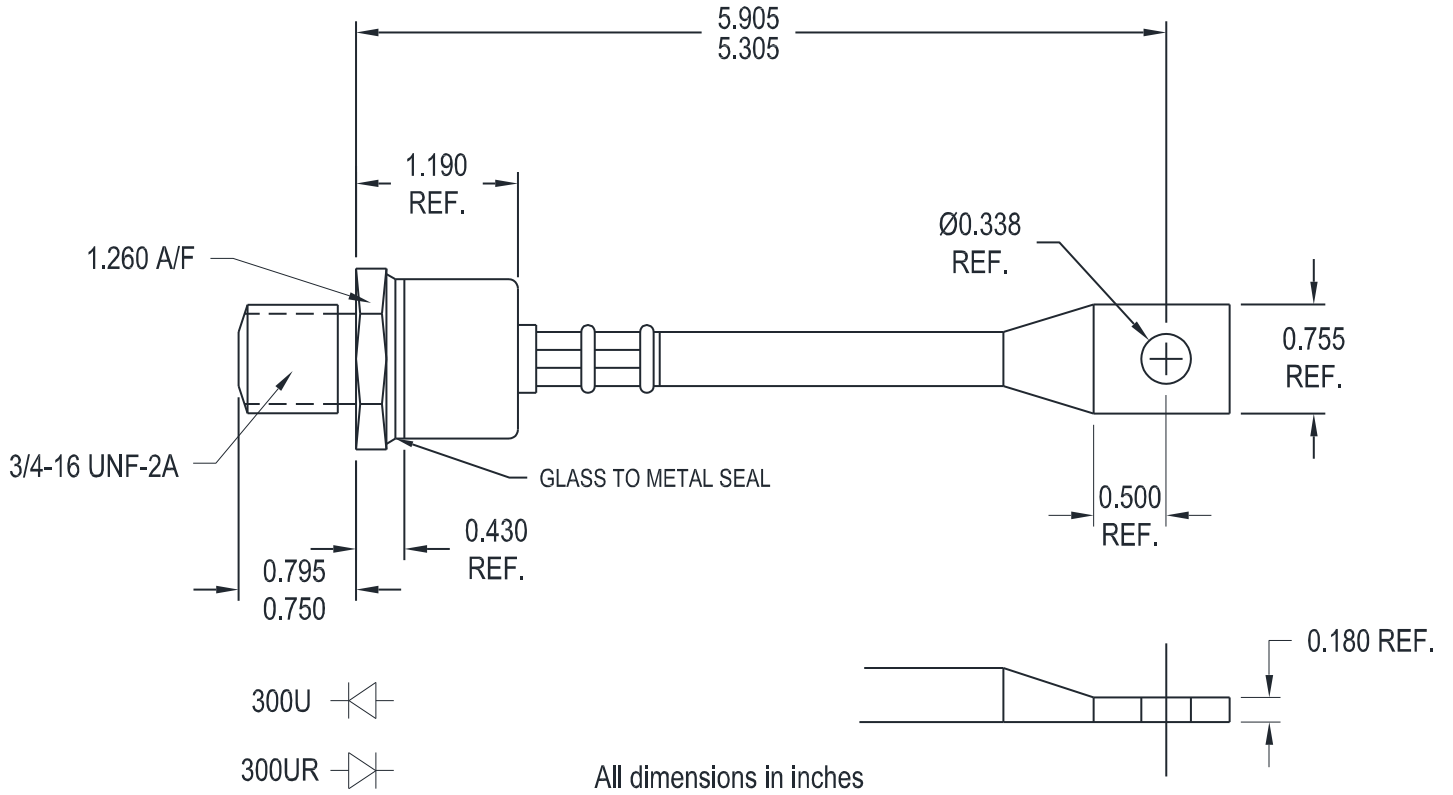
THERMAL AND MECHANICAL SPECIFICATIONS

Parameter	Symbol	Value	Units	Conditions
Max. thermal resistance junction to case	Θ_{J-C}	0.12	$^\circ\text{C}/\text{W}$	
Contact thermal resistance	Θ_{C-H}	0.08	$^\circ\text{C}/\text{W}$	
Operating junction temperature	T_J	-40 to 180	$^\circ\text{C}$	
Storage temperature	T_{STG}	-55 to 180	$^\circ\text{C}$	
Mounting torque +0 / -20%		37 Max. (327)	Nm (in-lb)	Non-lubricated threads
Approximate weight	W	260	gm	

Parameter	Symbol	10	20	40	60	80	100	120	140	160
Max. repetitive peak reverse voltage	V_{RRM}	100	200	400	600	800	1000	1200	1400	1600
Max. non-repetitive peak reverse voltage	V_{RSM}	150	300	500	700	900	1100	1300	1500	1700
Max. RMS reverse voltage	$V_{R(RMS)}$	70	140	280	420	560	700	840	980	1120
Max. DC blocking voltage	V_R	100	200	400	600	800	1000	1200	1400	1600
Recommended RMS working voltage		40	80	160	240	320	400	480	560	640
Max. peak reverse leakage current	I_{RM}	15	15	15	12	9	7	7	6	5



CASE OUTLINE & DIMENSIONS



300	U	R	60
1	2	3	4

- 1 – 300 = Series Device
- 2 – U = Standard Diode
- 3 – None = Normal Polarity
- R = Reverse Polarity
- 4 – Voltage Code x 10 = V_{RRM}