

STANDARD RECOVERY DIODES
Stud Version
Features

- Alloy diode
- High voltage ratings up to 800V
- High surge current capabilities
- Capacity of supporting high surge current
- Threaded studs 3/4 - 16UNF2A or M20x1.5
- Stud cathode and stud anode version

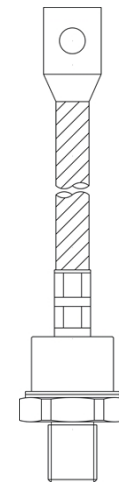
300A

Typical Applications

- AC/DC converters
- DC power supplies
- Machine tool controls

Major Ratings and Characteristics

Parameters		300U(R)..	Units
$I_{F(AV)}$		300	A
	@ T_c	756	°C
I_{FSM}	@ 50Hz	4100	A
	@ 60Hz	4250	A
$I^2 t$	@ 50Hz	180	KA ² s
	@ 60Hz	165	KA ² s
V_{RRM}		400 to 2000	V
T_j	range	- 40 to 150	°C



case style
DO-205AB (DO-9)

ELECTRICAL SPECIFICATIONS
Voltage Ratings

Type number	Voltage Code	V_{RRM} , maximum repetitive peak reverse voltage V	V_{RSM} , maximum non-repetitive peak rev. voltage V	I_{RRM} max. @ $T_J = T_J$ max. mA
		08	800	900

Forward Conduction

Parameter	300U..	Units	Conditions		
$I_{F(AV)}$ Max. average forward current @ Case temperature	300	A	180° conduction, half sine wave		
	75	°C			
I_{FSM} Maximum peak, one-cycle forward, non-repetitive surge current	4100	A	t = 10ms	No voltage	Sinusoidal half wave, Initial $T = T_{max}$.
	4250		t = 8.3ms	reapplied	
	3800		t = 10ms	100% V_{RRM}	
	3900		t = 8.3ms	reapplied	
$I^2 t$ Maximum $I^2 t$ for fusing	180	KA ² s	t = 10ms	No voltage	
	165		t = 8.3ms	reapplied	
	95		t = 10ms	100% V_{RRM}	
	90		t = 8.3ms	reapplied	
$I^2 \sqrt{t}$ Maximum $I^2 \sqrt{t}$ for fusing	1800	KA ² \sqrt{s}	t = 0.1 to 10ms, no voltage reapplied		
V_{FM} Maximum on-state or forward	1.80	V	pk = 900A, $T_J = 25^\circ\text{C}$, t p = 10ms sine pulse		

Thermal and Mechanical Specifications

Parameter	300U(R)..	Units	Conditions
T_J	- 40 to 150	°C	
R_{thJC} Thermal Impedance, max.	0.2	K/W	Junction to case
T Max. allowed mounting torque +0 -20%	37	Nm	Not lubricated threads
	28		Lubricated threads
wt Approximate weight	290	g	
Case style	DO-205AB (DO-9)		

Outline Table

