HUAJING

ZP70A(R).. SERIES

STUD TYPE DIDOE

Features

- Hermetic metal case with glass insulator
- High surge current capabilities
- Stud cathode and stud anode version

95A

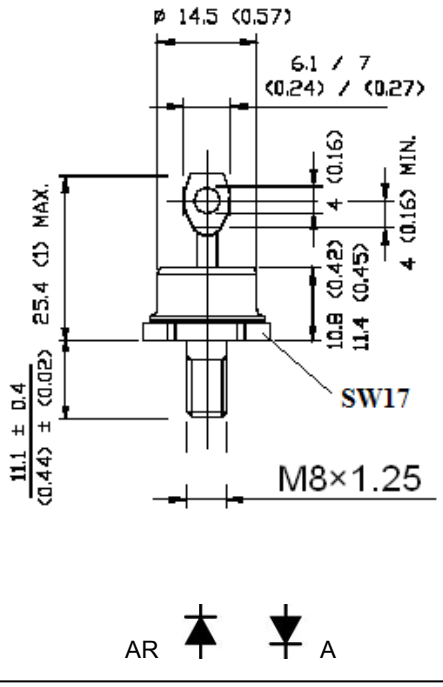
Typical Applications

- Converters
- Power supplies
- Machine tool controls

Major Ratings and Characteristics

Parameters		ZP70A(R)	Units
$I_{F(AV)}$		95	A
	@ T_{hs}	125	°C
$I_{F(RMS)}$		150	A
I_{FSM}	@ 50Hz	1000	A
	@ 60Hz	1150	A
I^2t	@ 50Hz	5	KA^2s
	@ 60Hz	5.5	KA^2s
V_{RRM}		400-1600	V
T_J		- 40 to 180	°C

Dimensions in mm



ELECTRICAL SPECIFICATIONS

Voltage Ratings

	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
ZP70A(R)	04	400	500	9
	08	800	900	
	12	1200	1300	
	16	1600	1700	

Forward Conduction

Parameter		ZP70A(R)	Units	Conditions	
$I_{F(AV)}$	Max. average forward current	95	A	180° conduction, half sine wave	
	@ Heatsink temperature	125	°C		
$I_{F(RMS)}$	Max.RMS forward current	150	A		
I_{FSM},	Max. peak, one-cycle non-repetitive surge current	1000	A	t = 10ms	T_{VJ}=25℃
		1150		t = 8.3ms	V_{RRM}=0
		890		t = 10ms	$T_{VJ}=T_{VJM}$
		900		t = 8.3ms	V_{RRM}=100%
I^2t	Maximum I^2t for fusing	5	kA^2s	t = 10ms	T_{VJ}=25℃
		5.5		t = 8.3ms	V_{RRM}=0
		3.9		t = 10ms	$T_{VJ}=T_{VJMAX}$
		3.3		t = 8.3ms	V_{RRM}=100%
V_{FM}	Max forward voltage drop	1.20	V	I_{FM}= 300A, T_J = 25°C, t_p=400 μ s	
$V_{F(TO)}$	Threshold voltage	0.80	V	For power-loss calculations only	
r_T	Forward slope resistance	3	mΩ	$T_{VJ}=T_{VJM}$	

Thermal and Mechanical Specification

	Parameter	ZP70A(R)	Units	Conditions
T_J	Max.junction operating temperature range	-40 to 180	°C	
T_{stg}	Max. storage temperature range	-40 to 200		
R_{thJC}	Max,thermal resistance,junction to case	0.65	K/W	DC operation
R_{thCS}	Max. thermal resistance,Case to heatsink	0.11		
wt	Approximate weight	18	g	
M	Mounting torque ± 10%	3.5	Nm	