

# HUAJING

# ZP70A(R).. SERIES

## STUD TYPE DIDOE

### Features

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

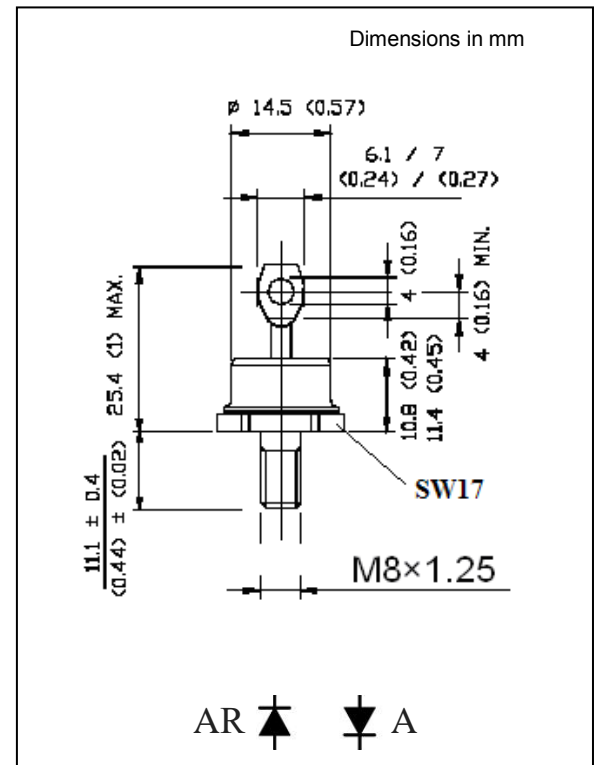
# 95A

### 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
$I_{FSM}$		A
@ 50Hz	1000	A
@ 60Hz	1150	A
$I^2 t$		KA <sup>2</sup> s
@ 50Hz	5	KA <sup>2</sup> s
@ 60Hz	5.5	KA <sup>2</sup> s
$V_{RRM}$	400-1600	V
$T_J$	- 40 to 180	°C



## ELECTRICAL SPECIFICATIONS

### Voltage Ratings

ZP70A(R)	Voltage Code	$V_{RRM}$ , maximum repetitive peak reverse voltage V	$V_{RSM}$ , maximum non-repetitive peak rev. voltage V	$I_{RRM}$ max. @ $T_J = T_{Jmax}$ . mA
	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 @ Heatsink temperature	95	A	180° conduction, half sine wave
	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 $T_{VJ}=25^{\circ}C$
	1150		t = 8.3ms $V_{RRM}=0$
	890		t = 10ms $T_{VJ}=T_{VJM}$
	900		t = 8.3ms $V_{RRM}=100\%$
$I^2 t$ Maximum $I^2 t$ for fusing	5	kA <sup>2</sup> s	t = 10ms $T_{VJ}=25^{\circ}C$
	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	$I_{FM}=300A, T_J=25^{\circ}C, t_p=400\mu s$
$V_{F(TO)}$ 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	