

P S T

PA882 - Fast Recovery Rectifier

1800 - 2500 V_{RRM}; 2500 A avg

HIGH POWER FAST RECOVERY RECTIFIER

Features:

- . All Diffused Structure
- . Fast Switching Performance
- . Blocking capability up to 2500 volts
- . Rugged Ceramic Hermetic Package
- . Pressure Assembled Device

CASE 5D



ELECTRICAL CHARACTERISTICS AND RATINGS

Reverse Blocking

Device Type	V _{RRM} (1)	V _{RSM} (1)
PA882PN	1800	1900
PA882L	2000	2100
PA882LB	2200	2300
PA882LD	2400	2500
PA882LE	2500	2600

V_{RRM} = Repetitive peak reverse voltage

V_{RSM} = Non repetitive peak reverse voltage (2)

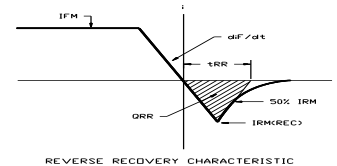
Repetitive peak reverse leakage	I _{RRM}	10 mA 150 mA (3)
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Notes:

All ratings are specified for T_j=25 °C unless otherwise stated.

(1) All voltage ratings are specified for an applied

50Hz/60Hz sinusoidal waveform over the temperature range -40 to +150 °C.



Conducting - on state

Parameter	Symbol	Min	Max.	Typ	Units	Conditions
Average value of on-state current	I _{F(AV)}		2500		A	Sinewave, 180° conduction, T _c = 70°C
RMS value of on-state current	I _{FRMS}		3900		A	Nominal value
Peak one cycle surge (non repetitive) current	I _{FSM}		55000		A	8.3 msec (60Hz), sinusoidal wave-shape, 180° conduction, T _j = 150 °C
I square t	I ² t		1.3x10 ⁷		A ² s	8.3 msec and 10 msec
Peak on-state voltage	V _{FM}		1.85		V	I _{FM} = 2000 A; Duty cycle ≤ 0.01%; T _{jmax}
Reverse Recovery Current (4)	I _{RM(REC)}		40 300		A	I _{FM} = 1000 A; dI _F /dt = 10 A/μs; T _{jmax} I _{FM} = 1000 A; dI _F /dt = 10 0A/μs; T _{jmax}
Reverse Recovery Charge (4)	Q _{rr}		1500		μC	I _{FM} = 1000 A; dI _F /dt = 10 0A/μs; T _{jmax}
Reverse Recovery Time (4)	t _{RR}		10		μs	I _{FM} = 1000 A; dI _F /dt = 10 0A/μs; T _{jmax}

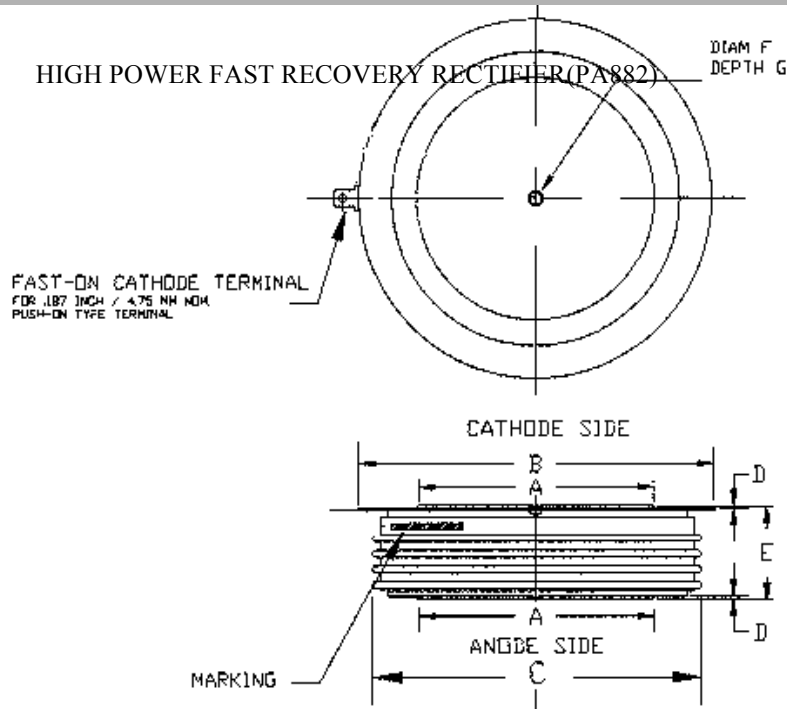
* For guaranteed maximum values, contact factory

THERMAL AND MECHANICAL CHARACTERISTICS PA882 - Fast Recovery Rectifier

Parameter	Symb ol	Min.	Max.	Typ.	Units	Conditions
Operating temperature	T _j	-40	+150		°C	
Storage temperature	T _{stg}	-40	+150		°C	
Thermal resistance - junction to case	R _{θ(j-c)}		0.012		°C/W	Double sided cooled
Thermal resistance - case to sink	R _{θ(c-s)}		0.01		°C/W	Double sided cooled
Mounting force	P	5000 22.3	6000 26.7		lb. kN	
Weight	W			1.5	kg	

* Mounting surfaces smooth, flat and greased

CASE OUTLINE AND DIMENSIONS



**CASE 5D
NOMINAL OUTLINE DIMENSIONS**

DIMENSIONS	INCH	MM
DIAM. A	2.88	73.2
DIAM. B	4.36	110.7
DIAM. C	3.95	100.3
D	.030	.76
E	1.400 / 1.440	35.56 / 36.58
F	.140	3.56
G	.080	2.03

STROKE DISTANCE = 1.04 Inch / 26.4 mm MIN.
CREEPAGE DISTANCE = 1.64 Inch / 41.6 mm MIN.