

POWER DIODE 82PF/PFR



DO5

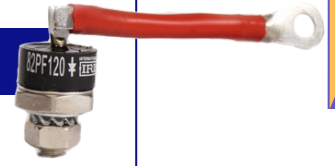
FEATURES

- **Available in Normal and Reverse Polarity**
- **All Diffused Series**
- **Industrial Grade**
- **Low Thermal Resistance**
- **High Surge Current Capability**

TYPICAL APPLICATIONS

- **Power supplies**
- **Machine tool controls**
- **Rotating rectifiers**

POWER DIODE 82PF/PFR



TECHNICAL DATA

DEVICE TYPE

V_{RRM}
(V)

V_{RSM}
(V)

82PF80/82PFR80	800	900
82PF120/82PFR120	1200	1300

SYMBOL	CONDITIONS	VALUES
$I_{F(AV)}$	Maximum average forward current $T_c = 140^\circ\text{C}$	80 A
V_{FM}	Maximum peak forward voltage drop @ $I_f = 240$ A	1.35 V
I_{FSM}	Maximum peak one cycle(non-rep.) surge current 10 msec.	1500 A
I^2t	Max. I^2t rating(non-rep.) for 10 msec.	11250 A ² Sec
I_{RRM}	Peak reverse current at $T_{vj} = 180^\circ\text{C}$	10 mA
V_0 R_0	$T_{vj} = \text{max}$ $T_{vj} = \text{max}$	0.75 V 2.80m Ω
$R_{th(j-c)}$ $R_{th(c-h)}$ T_{vj} T_{stg}	Maximum thermal resistance (Junction to case) Maximum thermal resistance (case to heat sink) Junction temperature Storage temperature	0.40 $^\circ\text{C}/\text{W}$ 0.25 $^\circ\text{C}/\text{W}$ 180 $^\circ\text{C}$ -40.....180 $^\circ\text{C}$
Mounting torque	Tighten on hexagone	4.3 Nm
	Tighten on Nut	3.4 Nm
Weight	Approx.	27.5 gm

Available with pigtail on request

POWER DIODE
82PF/PFR

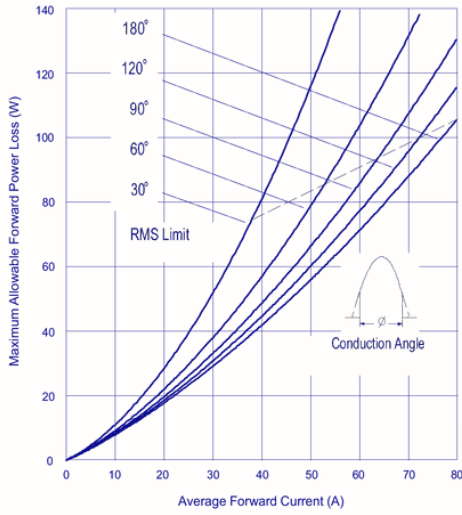


FIG. 1 forward power loss characteristics

FIG. 2 current ratings characteristics

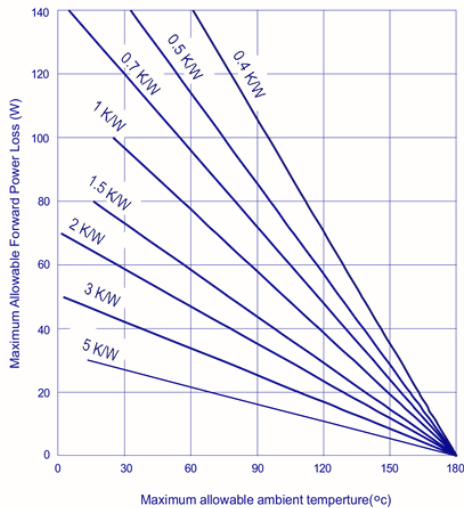
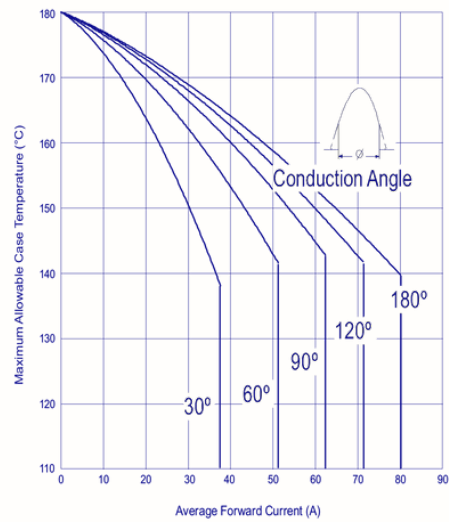


FIG. 3 maximum allowable ambient temperature (°C)

POWER DIODE
82PF/PFR

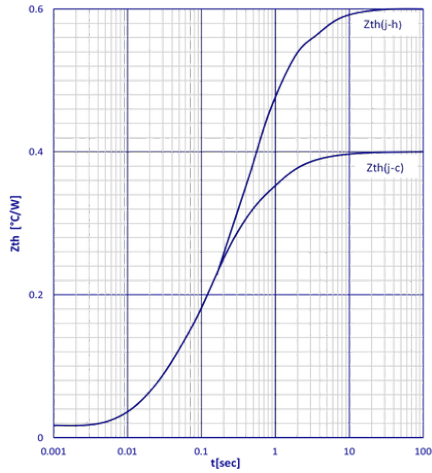


FIG. 4 transient thermal impedance

FIG. 5 forward characteristics

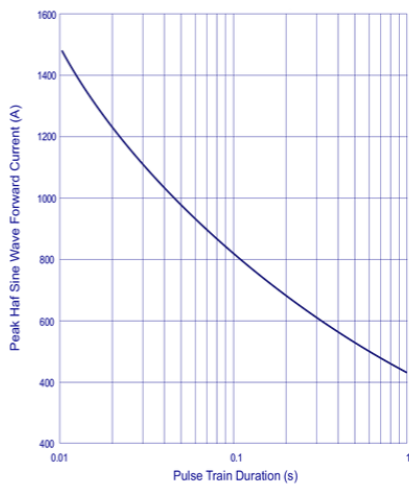
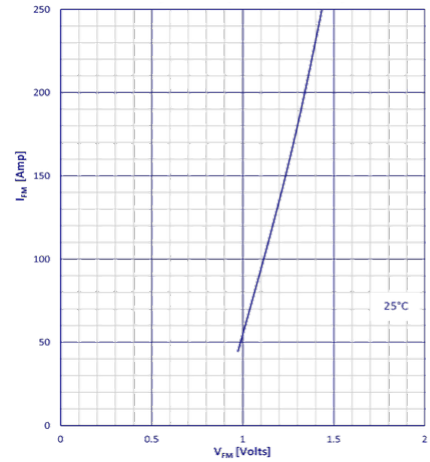


FIG. 6 maximum non-repetitive surge current

POWER DIODE
82PF/PFR

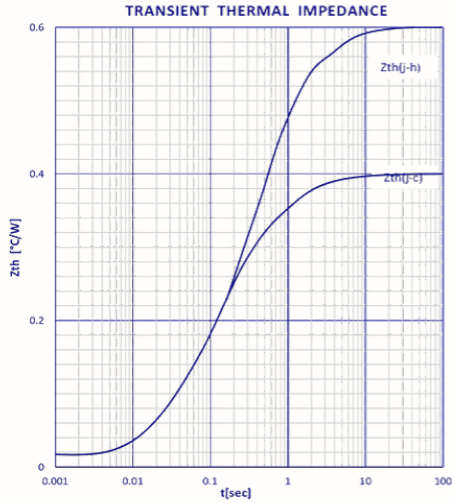


FIG. 7 transient thermal impedance

PACKAGE OUTLINE

