

POWER DIODE

150ND/RD, 150NE/RE

FEATURES

- ➡ Available in Normal & Reverse Polarity
- ➡ All Diffused Series
- ➡ Industrial Grade
- ➡ Available in Avalanche Characteristic



STUD

FLAT

DO 8

TYPICAL APPLICATIONS

- ➡ Power Supplies
- ➡ Machine Tool Controls
- ➡ Battery chargers
- ➡ Welders

POWER DIODE

**150ND/RD,
150NE/RE**



TECHNICAL DATA

DEVICE TYPE

V_{RRM}
(V)

V_{RSM}
(V)

150ND/RD40 150NE/RE40	400	500
150ND/RD120 150NE/RE120	1200	1300
150ND/RD160 150NE/RE160	1600	1700

SYMBOL	CONDITIONS	VALUES
$I_{F(AV)}$	Maximum average forward Current $T_c = 130^{\circ}\text{C}$	150A
V_{FM}	Maximum peak forward Voltage drop @ Rated I_F (Peak)	1.40 V
I_{FSM}	Maximum peak one cycle (non-rep.) surge current 10 msec	3570 A
I^2t	Max. I^2t rating (non-rep.) for 10 msec	64000 A^2Sec
I_{RRM}	Peak reverse current at $T_{vj} = 175^{\circ}\text{C}$	22 mA
V_0 R_0	$T_{vj}=\text{max}$ $T_{vj}=\text{max}$	0.85 V 1.10 $\text{m}\Omega$
$R_{th(j-c)}$ $R_{th(c-h)}$ $R_{th(c-h)}$ T_{vj} T_{stg}	Maximum thermal resistance (Junction to case) Maximum thermal resistance (Case to heat sink)(ND,RD) Maximum thermal resistance (Case to heat sink)(NE,RE) Junction temperature Storage temperature	0.25 $^{\circ}\text{C}/\text{W}$ 0.10 $^{\circ}\text{C}/\text{W}$ 0.07 $^{\circ}\text{C}/\text{W}$ 200 $^{\circ}\text{C}$ 200 $^{\circ}\text{C}$
Mounting torque		10 Nm
Weight	Approx.	150 gms
Package Outline		D,E

POWER DIODE

**150ND/RD,
150NE/RE**

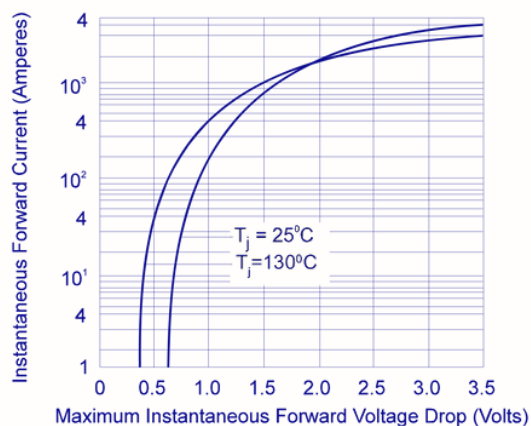


FIG. 1 forward voltage drop vs. forward current

FIG. 2 average forward current vs. case temperature

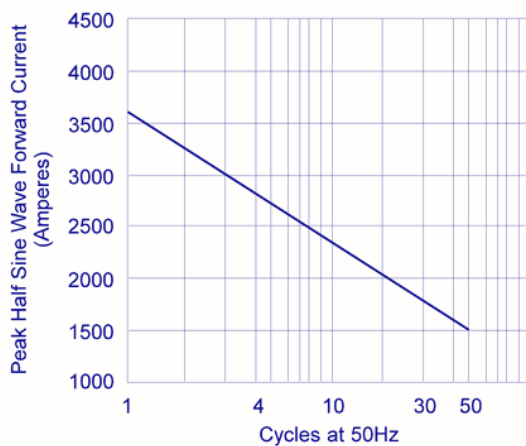
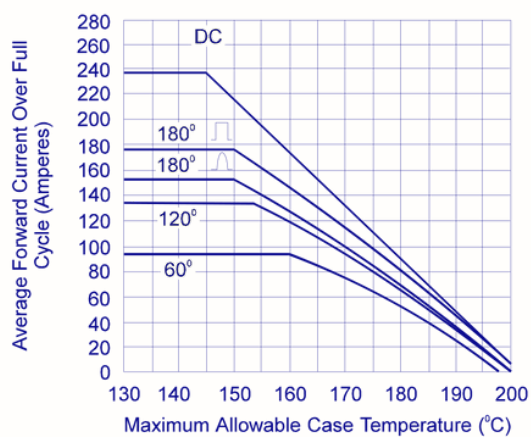


FIG. 3 maximum non recurrent surge current

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150NE/RE**

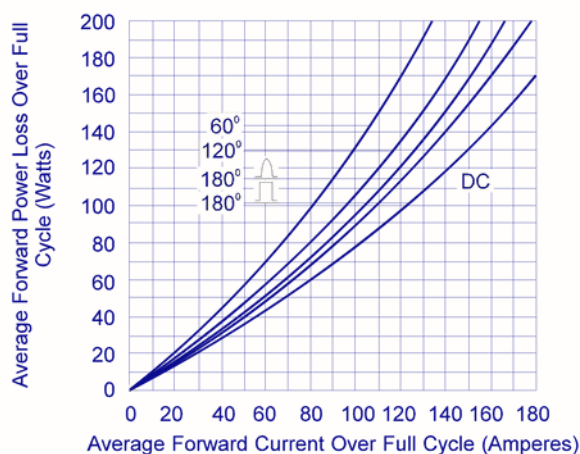


FIG. 4 average forward power loss vs. low level forward current

FIG. 5 transient thermal impedance

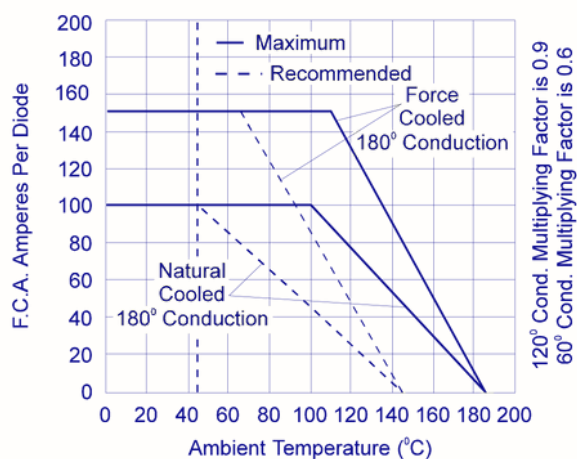
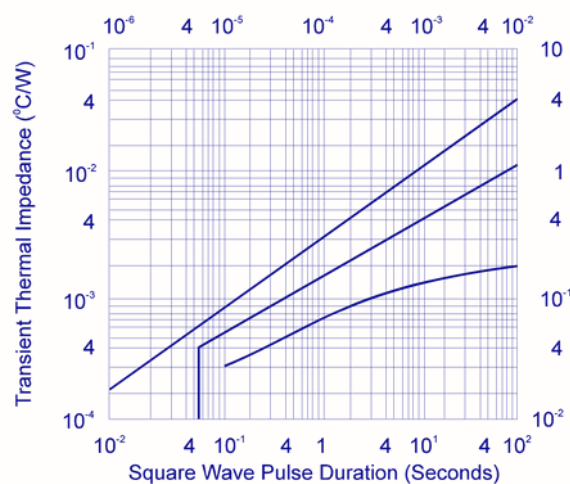


FIG. 6 diode 150nd/rd, 150ne/re on heat sink

type K4 with $\theta_{HA NC} 0.55^\circ \text{C} / \text{W}$,
FC $0.13^\circ \text{C} / \text{W}$

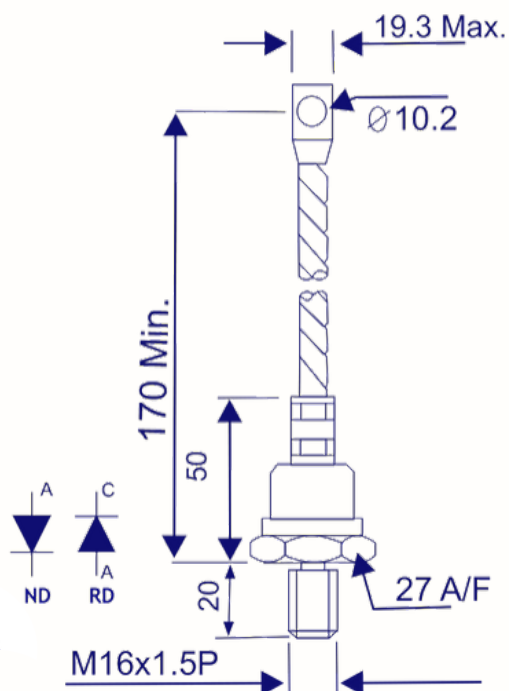
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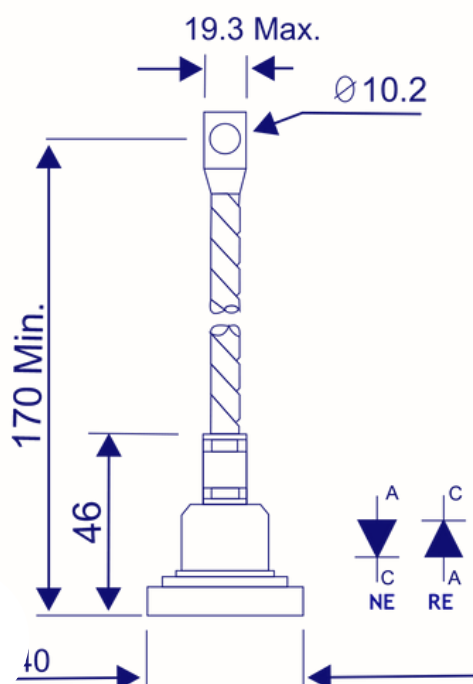


PACKAGE OUTLINE

150ND/150RD



150NE/150RE



all dimensions in mm