

# POWER DIODE

# 40029132



## FEATURES

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

## TYPICAL APPLICATIONS

- 👉 **Power Supplies**
- 👉 **Machine Tool Controls**
- 👉 **Battery Chargers**
- 👉 **Railway**

**POWER DIODE**

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TECHNICAL DATA

DEVICE TYPE

$V_{RRM}$   
(V)

$V_{RSM}$   
(V)

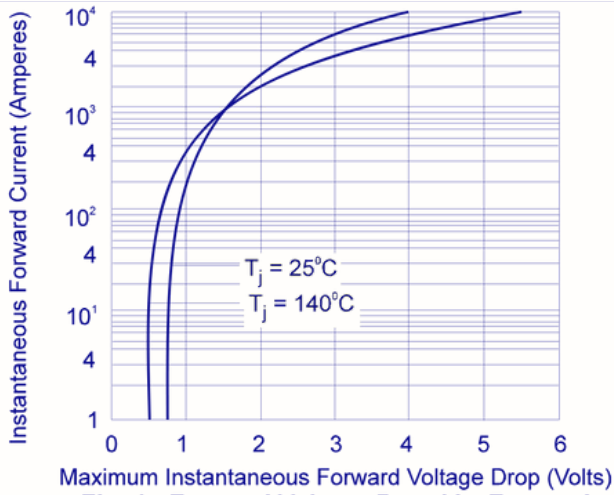
40029131 NORMAL	2800	2900
40029132 REVERSE		

SYMBOL	CONDITIONS	VALUES
$I_{F(AV)}$	Maximum average forward Current $T_c = 100^{\circ}C$	280 A
$V_{FM}$	Max Peak forward Voltage Drop @ 800 A	1.30 V
$I_{FSM}$	Maximum peak one cycle (non-rep.) surge current 10 msec	6500 A
$I^2t$	Max. $I^2t$ rating (non-rep.) for 10 msec	125000 A <sup>2</sup> Sec
$I_{RRM}$	Peak reverse current at $T_{vj} = 200^{\circ}C$	50 mA
$V_0$	$T_{vj} = \text{max}$	0.80 V
$R_0$	$T_{vj} = \text{max}$	0.45 m $\Omega$
$R_{th(j-c)}$	Maximum thermal resistance ( Junction to case)	0.13 $^{\circ}C/W$
$R_{th(c-h)}$	Maximum thermal resistance ( Case to heat sink)(NG, RG)	0.08 $^{\circ}C/W$
$R_{th(c-h)}$	Maximum thermal resistance ( Case to heat sink)(NF, RF)	0.05 $^{\circ}C/W$
$T_{vj}$	Junction temperature	-40 to +200 $^{\circ}C$
$T_{stg}$	Storage temperature	-40 to +200 $^{\circ}C$
Mounting torque		360 lb / 30 Nm
Weight	Approx.	260 gms
Package Outline		DO-9

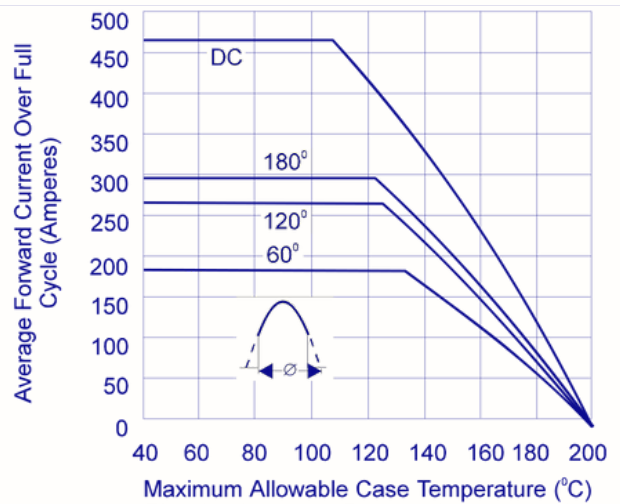
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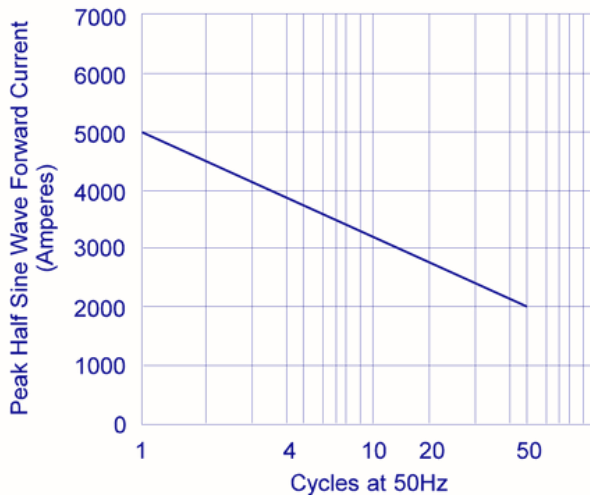
**FIG. 1** forward voltage drop vs. forward current



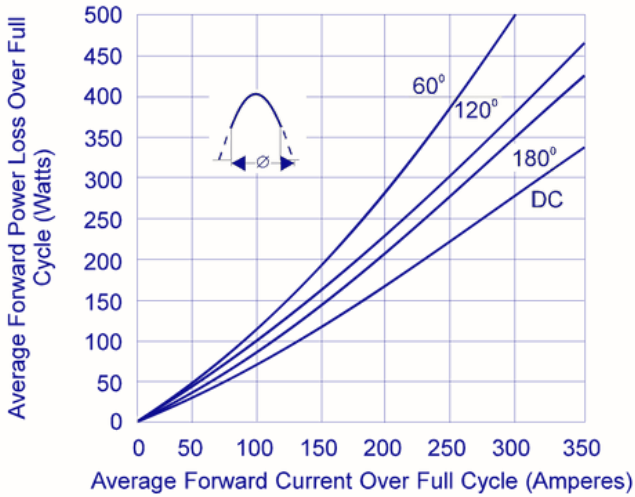
**FIG. 2** average forward current vs. case temperature



**FIG. 3** maximum non-recurrent surge current

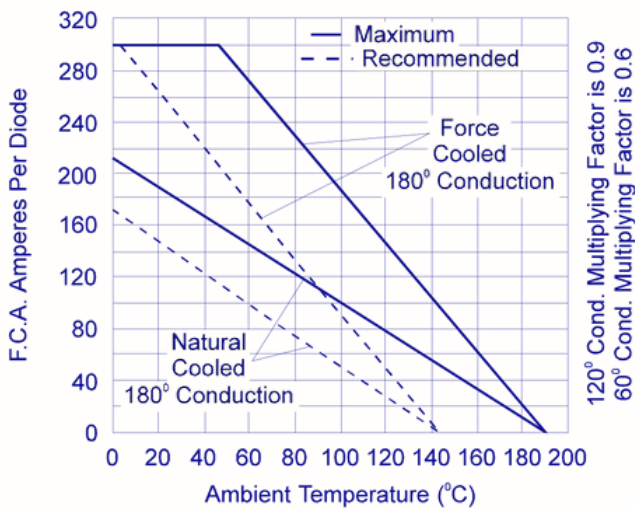
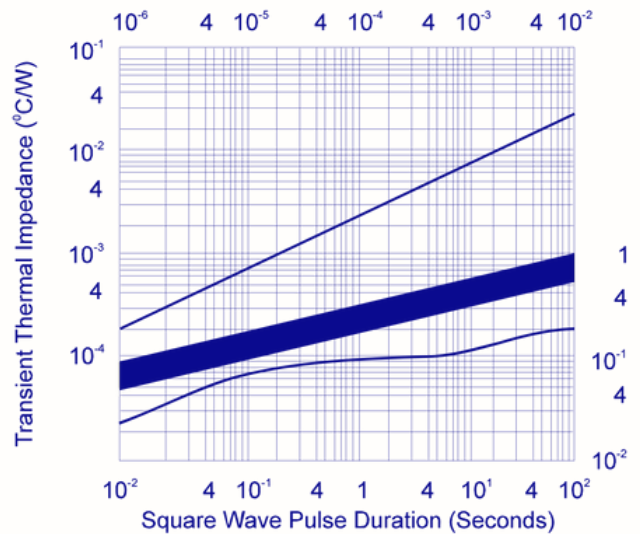


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**FIG. 4** maximum forward power loss vs. forward current

**FIG. 5** transient thermal impedance

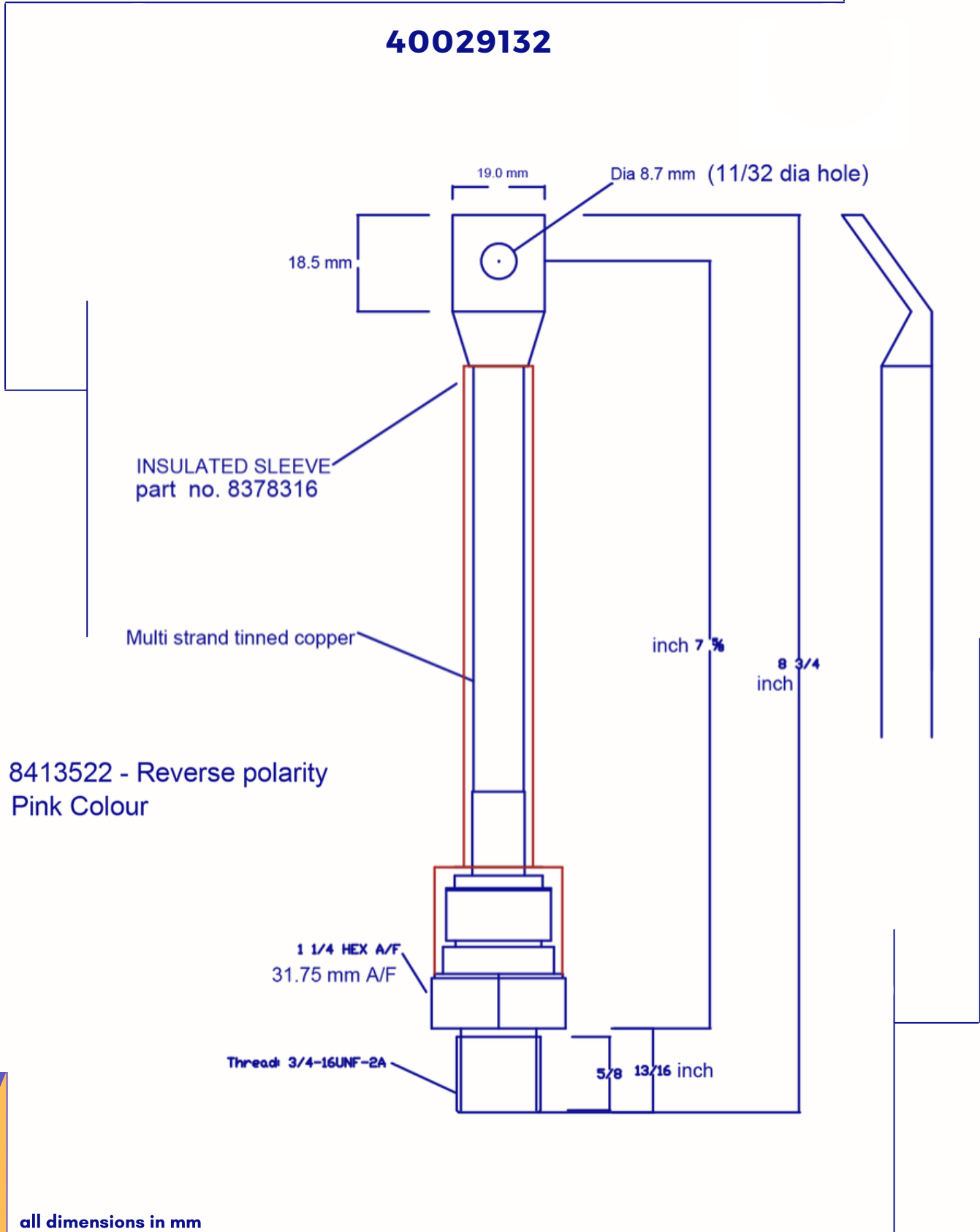


**FIG. 6** diode mounted on heat sink type K5 with  $\theta_{HA-NC}$  0.55°C/W, FC 0.13°C/W



# PACKAGE OUTLINE

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all dimensions in mm