

# HTZ170C Series

$I_{F(AV)} = 10 \text{ A}$   
 $V_{RRM} = 2800 \text{ V}$

# High Voltage Diode Rectifier Module

# LARONTROL

Electronic Devices

Type Number	Repetitive Peak	Minimum Avalanche Voltage $V_{(BR)R}$
HTZ170C2.8K	2800	3000
HTZ170C2.4K	2400	2600
HTZ170C2K	2000	2200

CIRCUIT DIAGRAM

Centre Tap



### CURRENT RATINGS - AIR COOLED

$I_{F(AV)}$	Mean forward current	Half wave resistive load $T_{amb} = 35^{\circ}\text{C}$	10	A
$I_F$	Continuous (direct) forward current	$T_{amb} = 35^{\circ}\text{C}$	10.8	A
$R_{th(j-a)}$	Thermal resistance junction to ambient		7	$^{\circ}\text{C/W}$

### CURRENT RATINGS - OIL COOLED

$I_{F(AV)}$	Mean forward current	Half wave resistive load $T_{oil} = 60^{\circ}\text{C}$	21.5	A
$I_T$	Continuous (direct) forward current	$T_{oil} = 60^{\circ}\text{C}$	23.5	A
$R_{th(j-o)}$	Thermal resistance junction to oil		2.5	$^{\circ}\text{C/W}$

### SURGE RATINGS

$I^2t$	$I^2t$ for fusing	10 ms half sine $T_{vj} = 150^{\circ}\text{C}$	5000	$\text{A}^2\text{sec}$
$I_{FSM}$	Surge (non-repetitive) forward current	$T_{vj} = 150^{\circ}\text{C}$	1000	A

### TEMPERATURE AND FREQUENCY RATINGS

$T_{vj}$	Virtual junction temperature	Forward (conducting)	180	$^{\circ}\text{C}$
		Reverse (blocking)	180	$^{\circ}\text{C}$
$T_{stg}$	Storage temperature range		-40 to 100	$^{\circ}\text{C}$
f	Frequency range		20 to 400	Hz

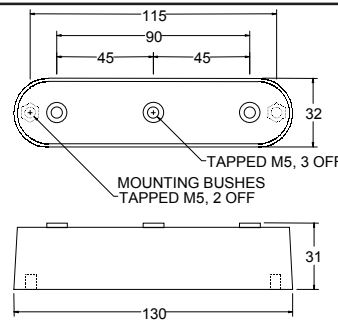
### CHARACTERISTICS $T_{case} = 25^{\circ}\text{C}$ unless otherwise stated

$V_{FM}$	Forward voltage	At 40 Amps peak	max 1.9	V
$I_{RM}$	Peak reverse current	At $V_{RRM}$ ; $T_{case} = 150^{\circ}\text{C}$	max 0.5	mA

### Dimensioned Outlines

Dimensions shown are maximum in mm

Weight typ.: 0,28 Kg



ZC

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IXYS reserves the right to change limits, test conditions and dimensions.

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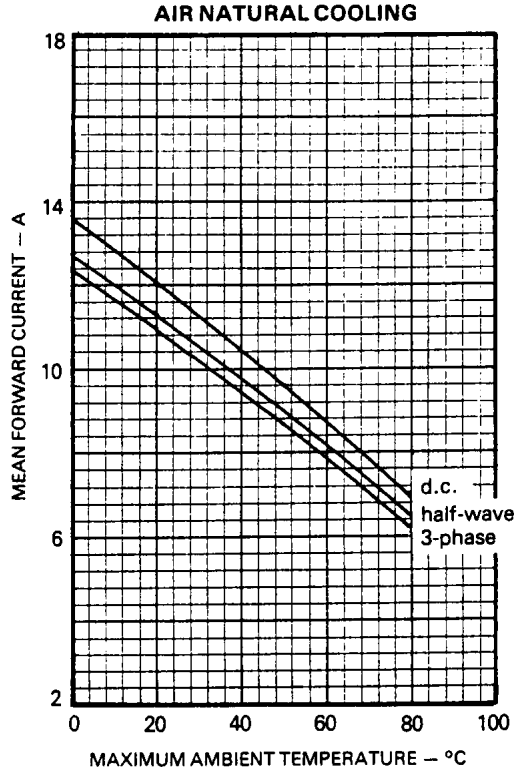
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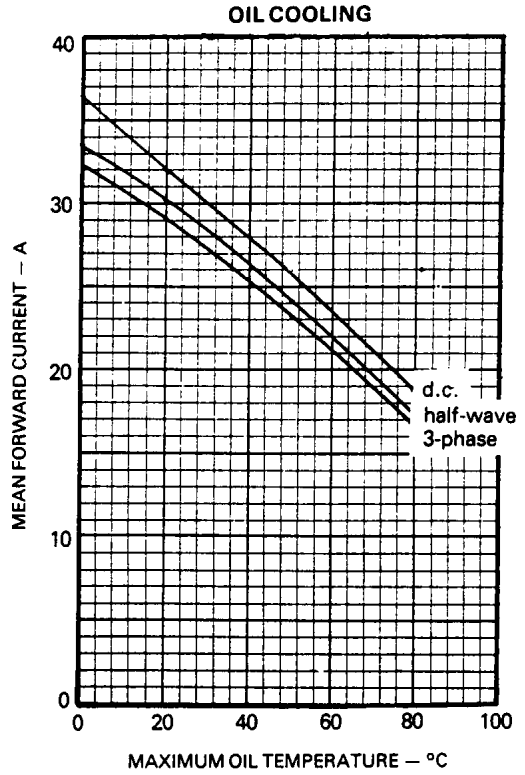
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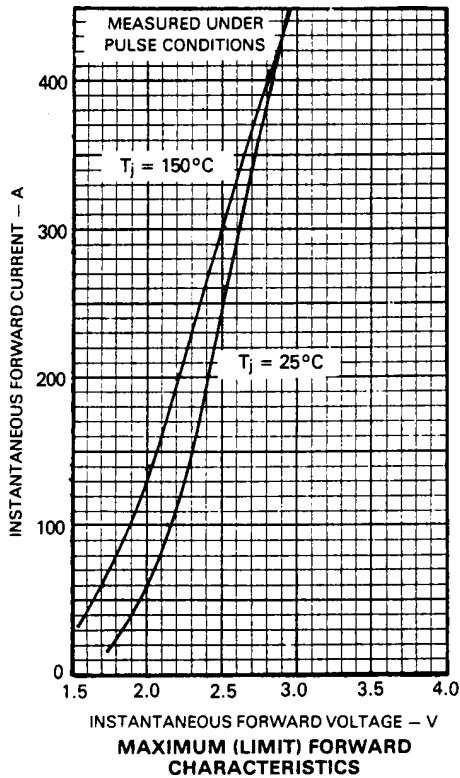
Electronic Devices



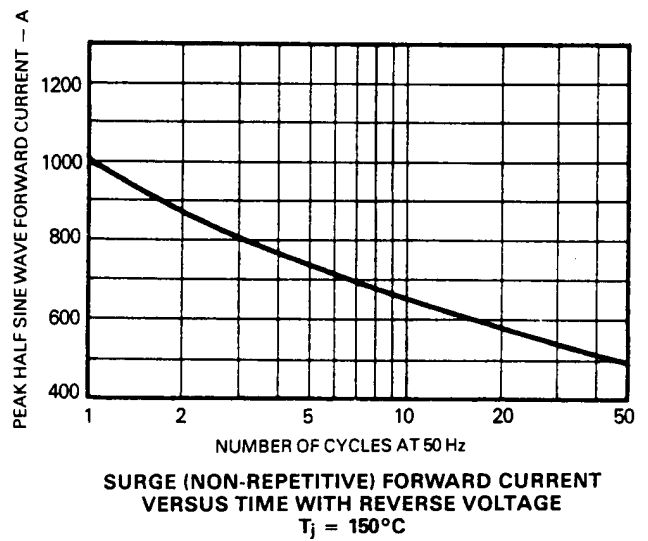
**DERATING CURVES**



**DERATING CURVES**



**MAXIMUM (LIMIT) FORWARD CHARACTERISTICS**



**SURGE (NON-REPETITIVE) FORWARD CURRENT VERSUS TIME WITH REVERSE VOLTAGE**  
 $T_j = 150^\circ\text{C}$