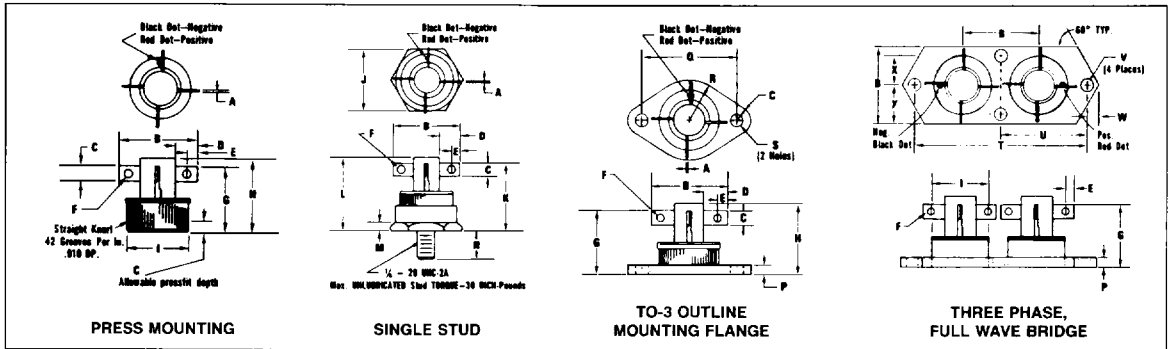
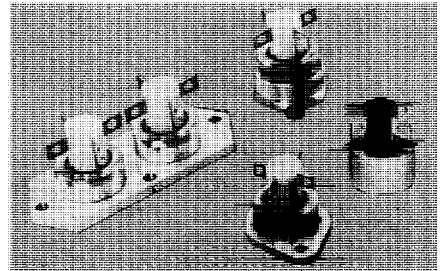


# IBR

## 25 Amp Fast Recovery Time Integrated Rectifiers

### VY Series

200 Nanosecond Reverse Recovery  
 100V, 200V, and 400V,  $V_{RRM}$  Ratings  
 150 Amps One Half Cycle Surge Current  
 2000V Minimum Circuit-To-Case Insulation



LTR.	INCHES	MILLIMETERS	LTR.	INCHES	MILLIMETERS	LTR.	INCHES	MILLIMETERS	LTR.	INCHES	MILLIMETERS
A	.032 Typ.	.81	G	.830 Max.	21,08	M	.120	3,05	T	2,250	57,15
B	1.0 Max.	25,4	H	.930 Max.	23,62	N	.34-.40	8,64-10,16	U	1,125	28,58
C	.187 Typ.	4,75	I	.7505-.7545	19,06-19,16	P	.135 Max.	3,43	V	.156 Dia.	3,96
D	.25 Min.	6,35	J	.875	22,23	Q	1.177-1.197	29,90-30,40	W	.164	4,17
E	.125 Typ.	3,18	K	1.10 Max.	27,94	R	.525R Max.	13,34	X	.375	9,35
F	.110 Dia.	2,79	L	1.20 Max.	30,48	S	.151-.161 Dia.	3,84-4,09	Y	.50	12,70

Dimensional tolerance inches .XX<sup>±</sup>.02 .XXX<sup>±</sup>.005

**MAXIMUM RATINGS AT  $T_A = 25^\circ\text{C}$  (unless otherwise specified)**

RATINGS	SYMBOL	VY100X	VY200X	VY400X	UNITS
DC Blocking Voltage	$V_{RRM}$	100	200	400	Volts
Working Peak Reverse Voltage	$V_{RWM}$				
Peak Repetitive Reverse Voltage	$V_{RRM}$				
Peak Reverse Voltage, 1/2 Cycle at 60Hz (non-rep)	$V_{RM}$ (non-rep)	120	240	480	Volts
RMS Reverse Voltage	$V_{RRMS}$	70	140	280	Volts
Peak Surge Current, 1/2 Cycle at 60Hz (non-rep) per diode (Fig. 2)	$I_{FSM}$		150		Amps
Avg. Forward Current $T_C = 100^\circ\text{C}$ (Fig. 1)	$I_o$		25		Amps
Junction Operating and Storage Temperature Range	$T_J, T_{STG}$		- 65 to + 150		$^\circ\text{C}$

NOTE: Case temperature ( $T_C$ ) is measured on bottom of case within .125 inches of center.

**ELECTRICAL CHARACTERISTICS AT  $T_A = 25^\circ\text{C}$  (unless otherwise specified)**

CHARACTERISTICS	SYMBOL	UNITS
Maximum Instantaneous Forward Voltage Drop at 25 Amps per diode (Fig. 3)	$V_{FM}$	1.8 Volts
Maximum Reverse Recovery Time, $I_F = 1$ Amp, $I_R = 2$ Amp $I_{RR} = 0.5$ Amp	$t_r$	200 nsec
Maximum Reverse Current at Rated $V_{RRM}$ and $T_C = 150^\circ\text{C}$ , per diode	$I_{RRM}$	5 mA
Thermal Resistance, Junction to Case	$R_{\theta JC}$	1 $^\circ\text{C}/\text{W}$
Insulation Strength, Circuit to Case, Min.		2000 Volts DC

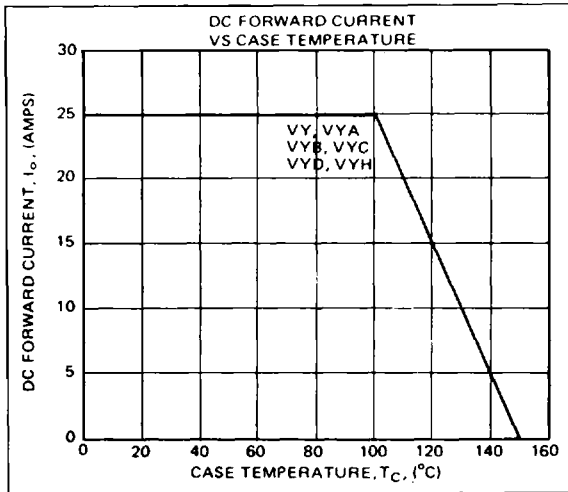


FIGURE 1

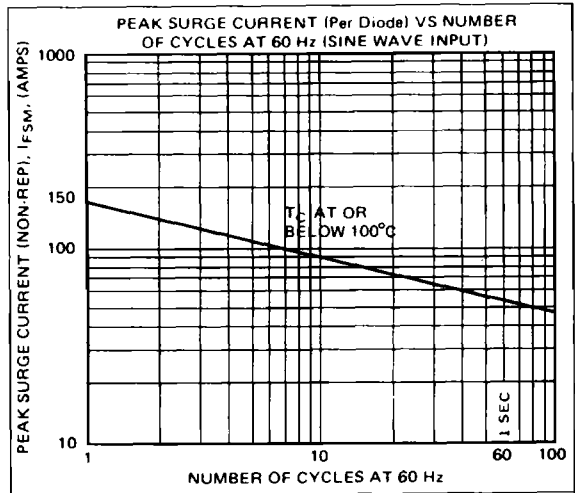


FIGURE 2

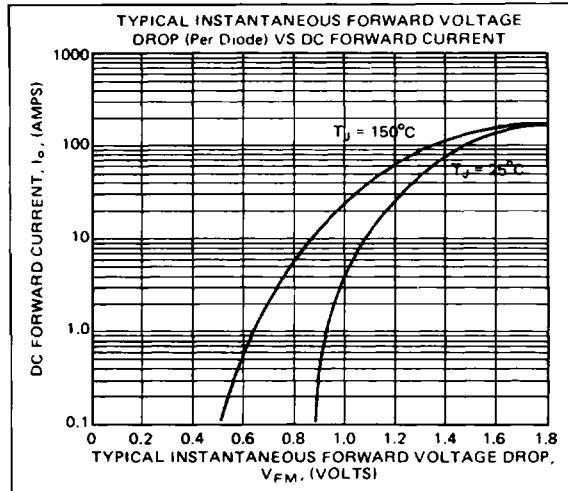


FIGURE 3

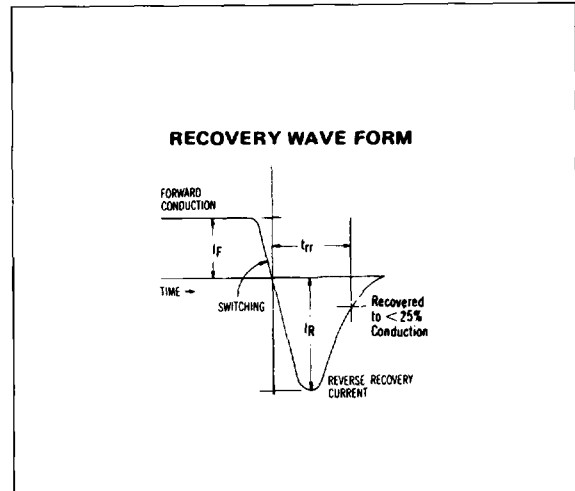


FIGURE 4

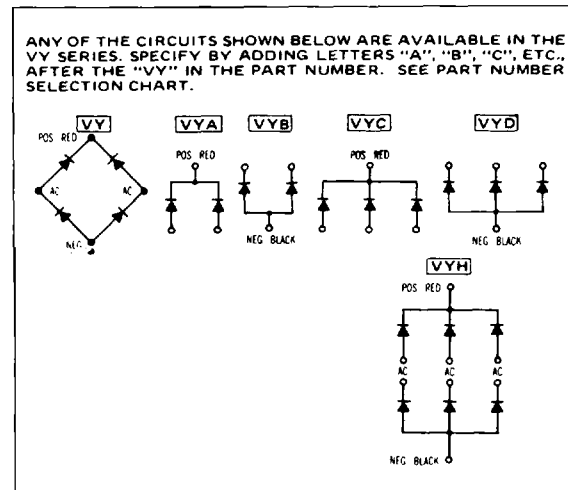


FIGURE 5

CIRCUIT	100V	200V	400V
FULL WAVE BRIDGE	VY100X	VY200X	VY400X
CENTER TAP COMMON CATHODE	VYA100X	VYA200X	VYA400X
CENTER TAP COMMON ANODE	VYB100X	VYB200X	VYB400X
THREE PHASE COMMON CATHODE	VYC100X	VYC200X	VYC400X
THREE PHASE COMMON ANODE	VYD100X	VYD200X	VYD400X
*THREE PHASE FULL WAVE BRIDGE	VYH100X	VYH200X	VYH400X

\*Assembly of VYC and VYD (100V, 200V, 400V) in single mounting flange. See drawing.

NOTE: Devices have standard flag terminals as shown (.187"-4.75mm).  
 To order TO-3 Mount add suffix "T" to part no.  
 To order Single Stud Mount add suffix "S" to part no.