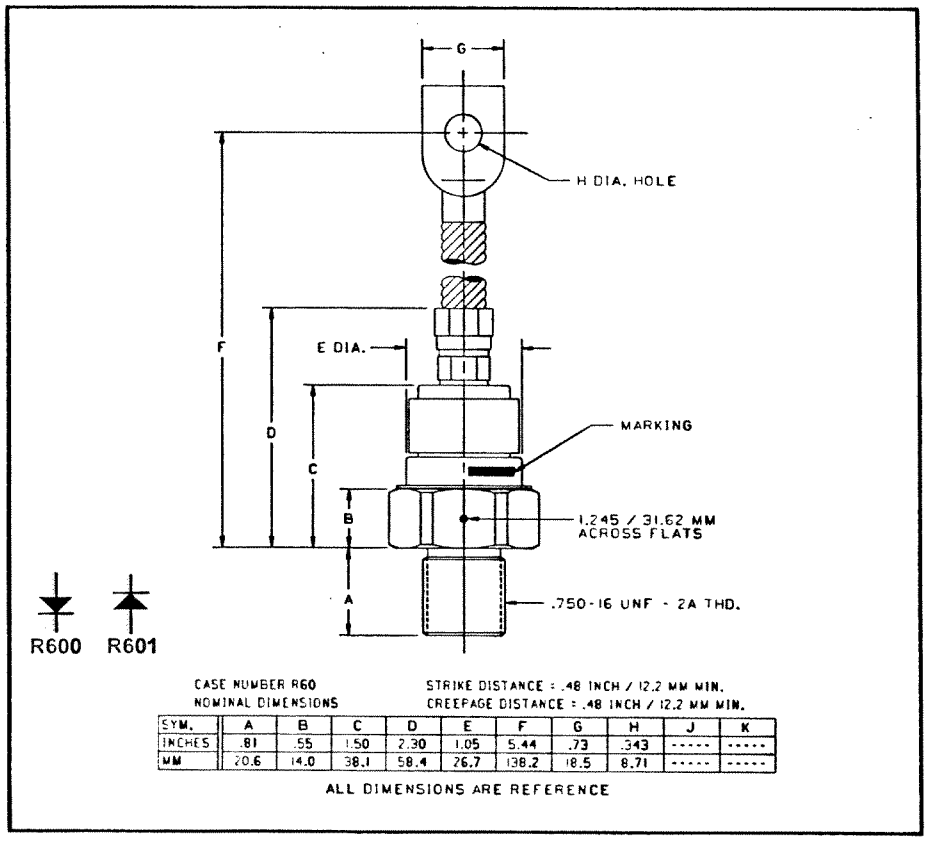
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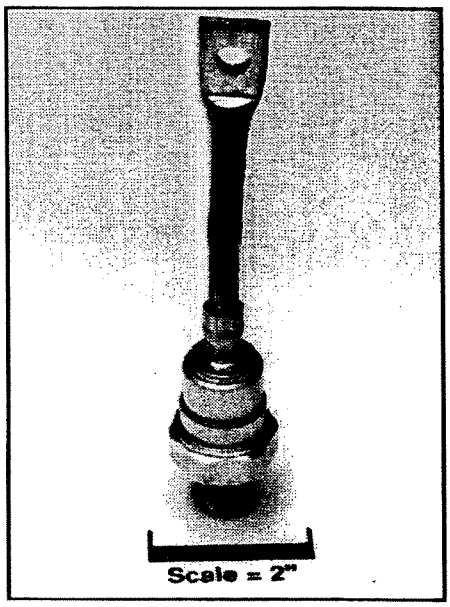
General Purpose Rectifier

200-300 Amperes Average
1400-2600 Volts



SYM.	A	B	C	D	E	F	G	H	J	K
INCHES	.81	.55	1.50	2.30	1.05	5.44	.73	.343	-----	-----
MM	20.6	14.0	38.1	58.4	26.7	138.2	18.5	8.71	-----	-----

R600/R601 (Outline Drawing)



R600/R601
General Purpose Rectifier
200-300 Amperes Average,
1400-2600 Volts

Features:

- ☐ Standard and Reverse Polarities
- ☐ Flag Lead and Stud Top Terminals Available
- ☐ High Surge Current Ratings
- ☐ High Rated Blocking Voltages
- ☐ Special Electrical Selection for Parallel and Series Operation
- ☐ Glazed Ceramic Seal Gives High Voltage Creepage and Strike Paths
- ☐ Compression Bonded Encapsulation
- ☐ JAN Types Available

Applications:

- ☐ Welders
- ☐ Battery Chargers
- ☐ Electromechanical Refining
- ☐ Metal Reduction
- ☐ General Industrial High Current Rectification

Ordering Information:

Select the complete part number you desire from the following table:

Type	Voltage		Current		Recovery Time		Recovery Time Circuit		Leads	
	V_{RRM} (Volts)	Code	$I_{F(av)}$ (A)	Code	t_{rr} (µsec)	Code	Circuit	Code	Case	Code
R600 (Std. Polarity)	1400	14	200	20	13	X	JEDEC	X	DO-9	YA
	1600	16								
	1800	18	250	25	11	X				
	2000	20								
R601 (Rev. Polarity)	2200	22	300	30	9	X				
	2400	24								
	2600	26								

Example: Type R600 Rated at 300A average with VRRM = 2600V and standard flexible lead, order as:

Type				Voltage		Current		Time	Circuit	Leads	
R	6	0	0	2	6	3	0	X	X	Y	A

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R600/R601
General Purpose Rectifier
200-300 Amperes Average, 1400-2600 Volts

Absolute Maximum Ratings

Characteristics	Symbol	R600_ _20, R601_ _20	R600_ _25, R601_ _25	R600_ _30, R601_ _30	Units
RMS Forward Current	$I_{F(rms)}$	315	400	470	Amperes
Average Forward Current	$I_{F(av)}$	200	250	300	Amperes
One-half Cycle Surge Current	I_{FSM}	5500	6000	6500	Amperes
3 Cycle Surge Current	I_{FSM}	4300	4700	5050	Amperes
10 Cycle Surge Current	I_{FSM}	3300	3600	3900	Amperes
I^2t (for Fusing), Times = 8.3 milliseconds	I^2t	125000	150000	175000	A^2sec
Storage Temperature	T_{stg}	-65 to +190	-65 to +190	-65 to +190	°C
Operating Temperature	T_j	Up to 1200V	1200V to 2200V	2200V to 2800V	°C
		-65 to +190	-65 to +175	-65 to +150	
Mounting Torque		360	360	360	in-lb

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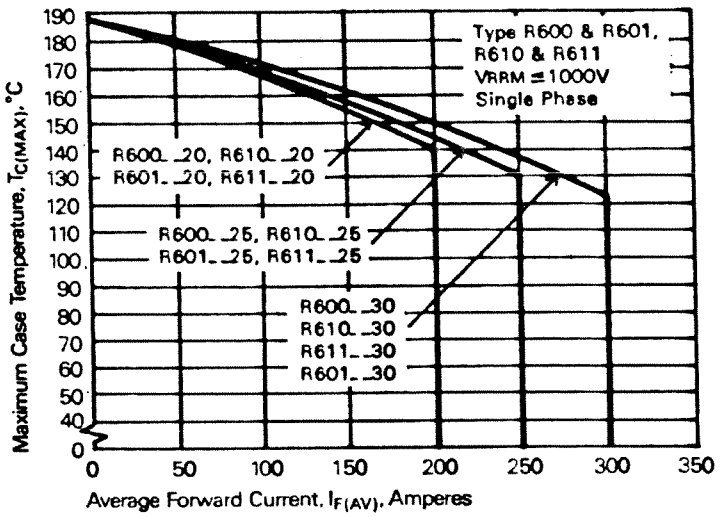
R600/R601
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200-300 Amperes Average, 1400-2600 Volts

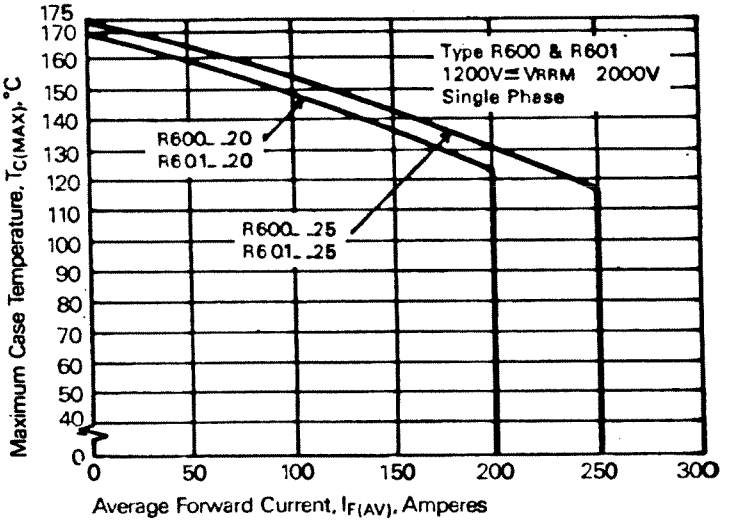
Electrical and Thermal Characteristics

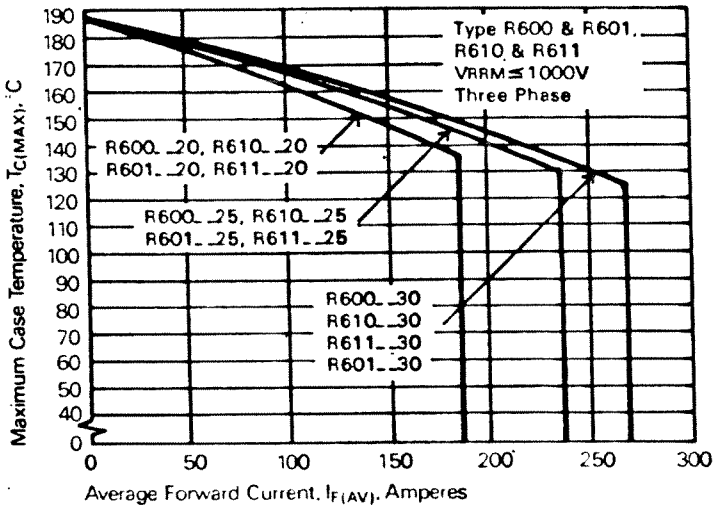
Characteristics	Symbol	Test Conditions	R600_ _20, R601_ _20	R600_ _25, R601_ _25	R600_ _30, R601_ _30	Units
Current - Conducting State Maximums						
Forward Voltage Drop	V_{FM}	T_j = 25°C, I_{FM} = 800A	1.70	1.50	1.40	Volts
Voltage - Blocking State Maximums						
Repetitive Peak Reverse Voltage (Rated Limit)	V_{RRM}		2600	2600	2600	Volts
Non-rep. Trans. Peak Rev. Voltage (Rated Limit)	V_{RSM}	V ≤ 5.0msec	2800	2800	2800	µsec
Reverse Leakage Current	I_{RRM}	T_j at max., V_{RRM} Rated	50	50	50	mA
Switching						
Typical Reverse Recovery Time	t_{rr}	I_{FM} = 785A, t_p = 100µsec, di_R/dt = 25A/µsec, T_C = 25°C	9	11	13	µsec
Thermal						
Maximum Resistance, Case to Sink (Lubricated)	$R_{\theta(c\text{-}s)}$		0.10	0.10	0.10	°C/Watt

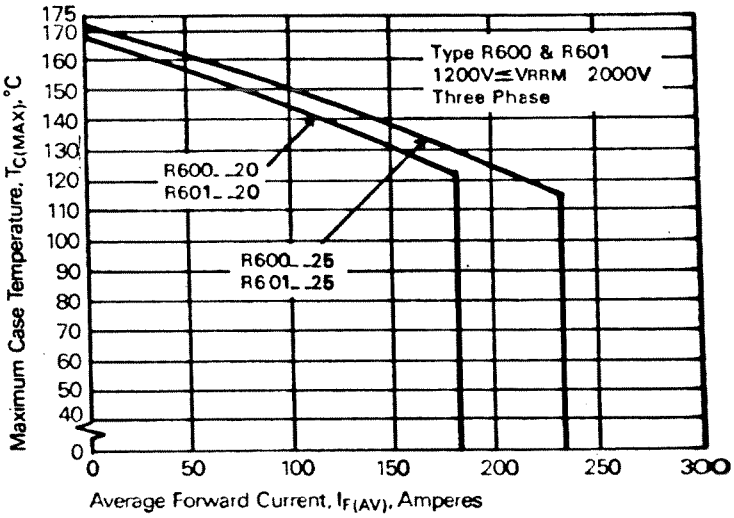
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R600/R601
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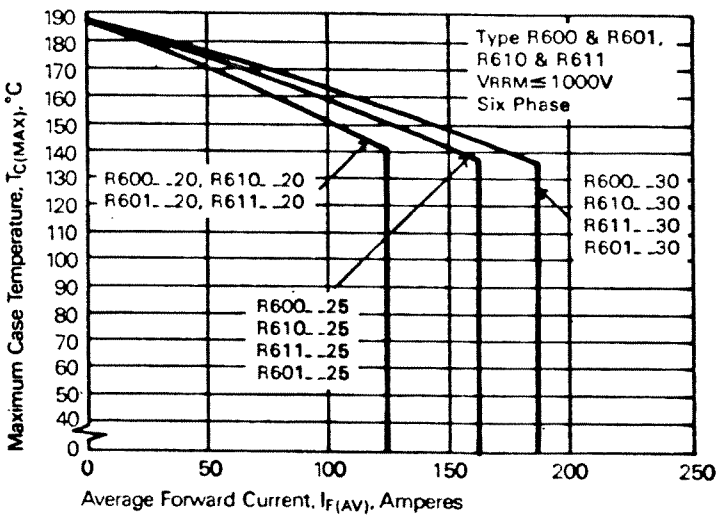


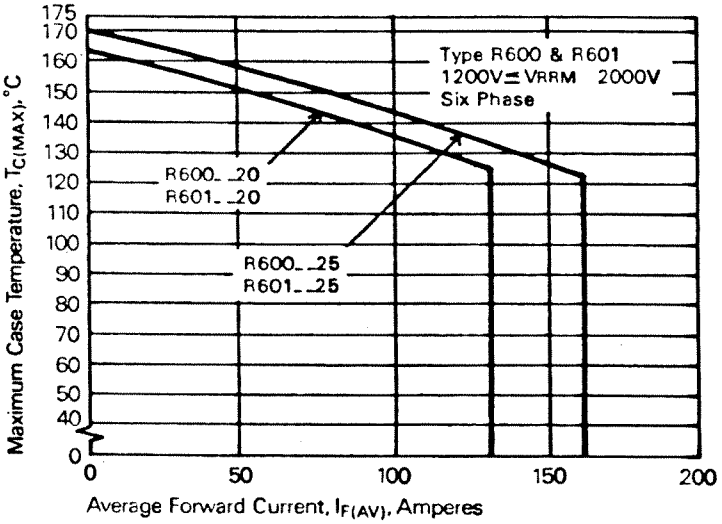


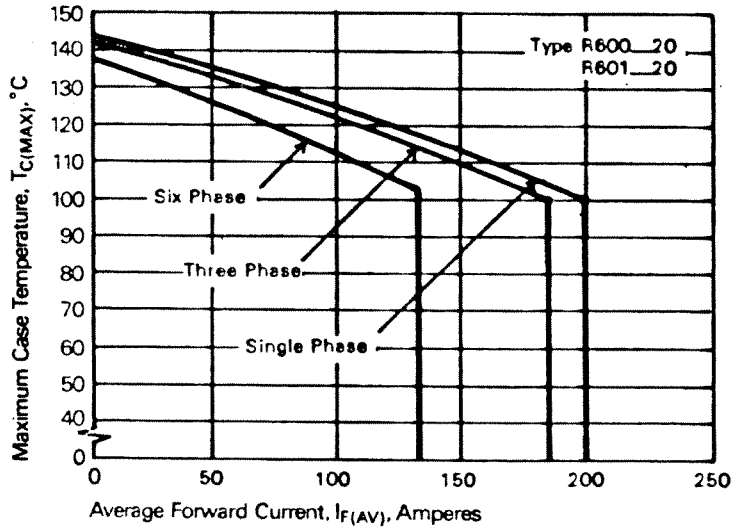
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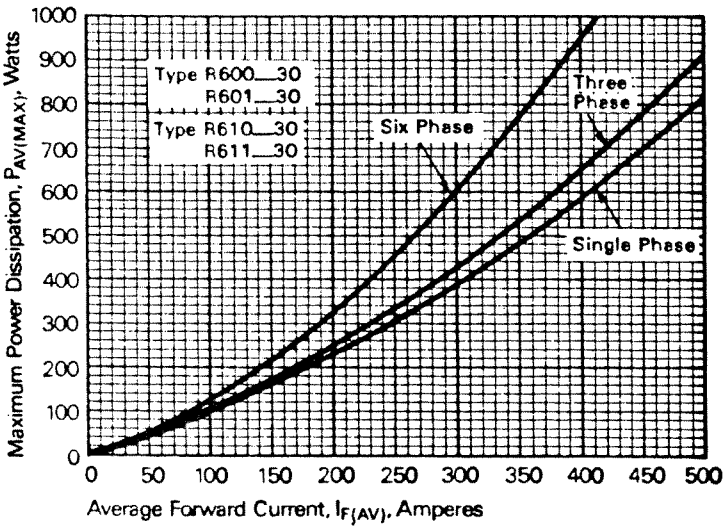
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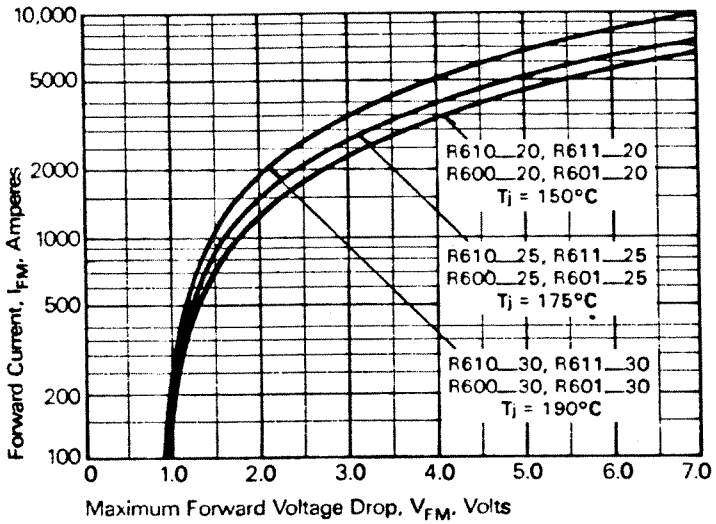


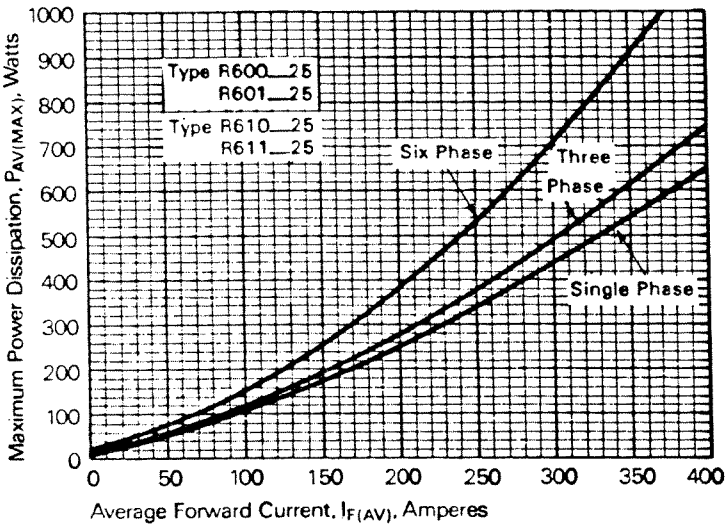


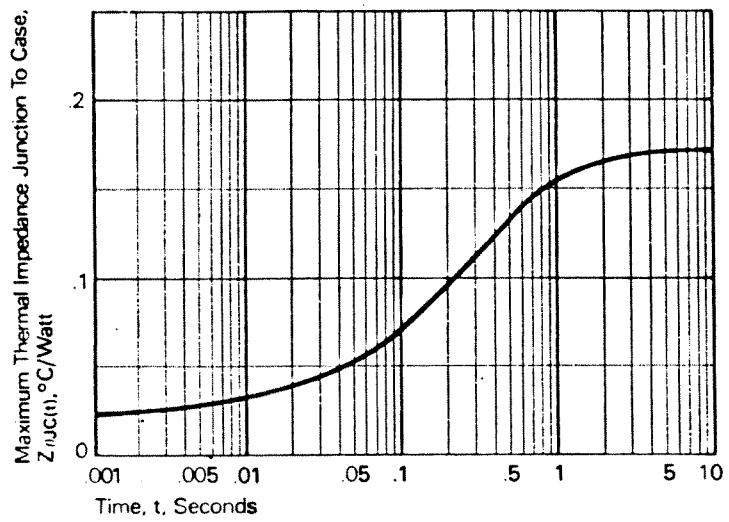


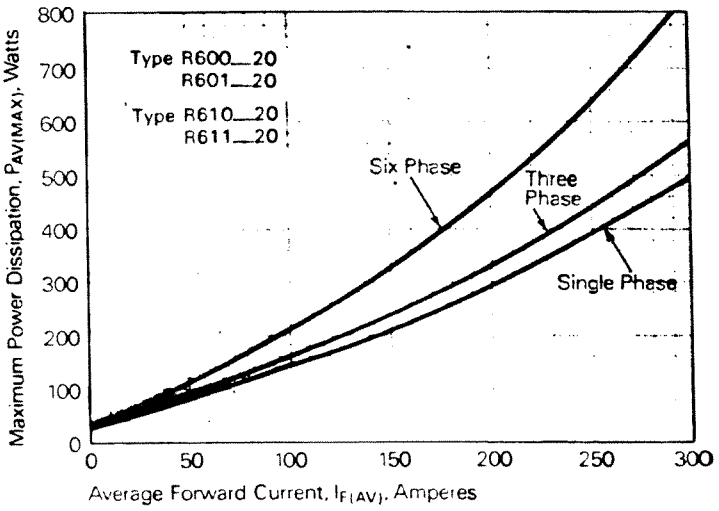
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