



ADVANCE DATA

MECHANICAL DATA

Vibration (Non-Operating)	50 cycles - 10 G	
Maximum Altitude	10,000	Feet
Mounting Position	Any	
Overall Dimensions	5 3/8 x 5 1/4 x 4 29/64	Inches
Net Weight	4 3/4	Lbs.
Cooling	Convection Air	
Pressurization	45	psi abs.
Output Coupling	UG-40A/U	

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage - Preheat	1, 2	6.3 ± 10%	Volts
Heater Current at 6.3 Volts		.43 - .60	Amp
Minimum Preheat Time		2	Minutes

RATINGS (Absolute Maximum) ³

Heater Voltage	7.0	Volts
Peak Current	8.0	Amps
Peak Anode Voltage	8.0	kv
Average Power Input	80	Watts
Frequency Pulling at VSWR 1.5/1	15	mc
Anode Temperature	120°	C
Pulse Duration	2.5	µsecond
Duty Cycle	.0025	
Rate-of-Rise of Voltage	60	kv/µsecond
VSWR	1.5/1	
R F Bandwidth	2.5/tp	mc

TYPICAL OPERATION

	Oscillation 1	Oscillation 2	
Pulse Recurrence Freq.	1000	2000	pps
Pulse Duration	1.0	1.0	µsecond
Peak Anode Voltage	6.9	6.5	kv
Peak Anode Current	7.5	3.5	amps
Average Anode Current	7.5	7.0	ma
Useful Range of Average Current	6-7.5	7.0-12.0	ma
Average Power Output	18		Watts
Input Capacitance	6		µuf

NOTES:

- The cathode heating time shall be a minimum of 120 seconds at temperature greater than 0°C and a minimum of 180 seconds at temperatures between 0°C and -55°C. For duty cycle greater than .001, reduce heater voltage according to manufacturer's recommendations.

QUICK REFERENCE DATA

Sylvania Type 6027 magnetron is similar to the 2J42, but is supplied with an additional magnet which increases the magnetic gap field. This permits higher power outputs as shown in the accompanying "operating characteristics" graphs.

The 6027 is a pulsed, fixed frequency (9345-9405 mc) magnetron.

The unit is supplied with magnets in place.

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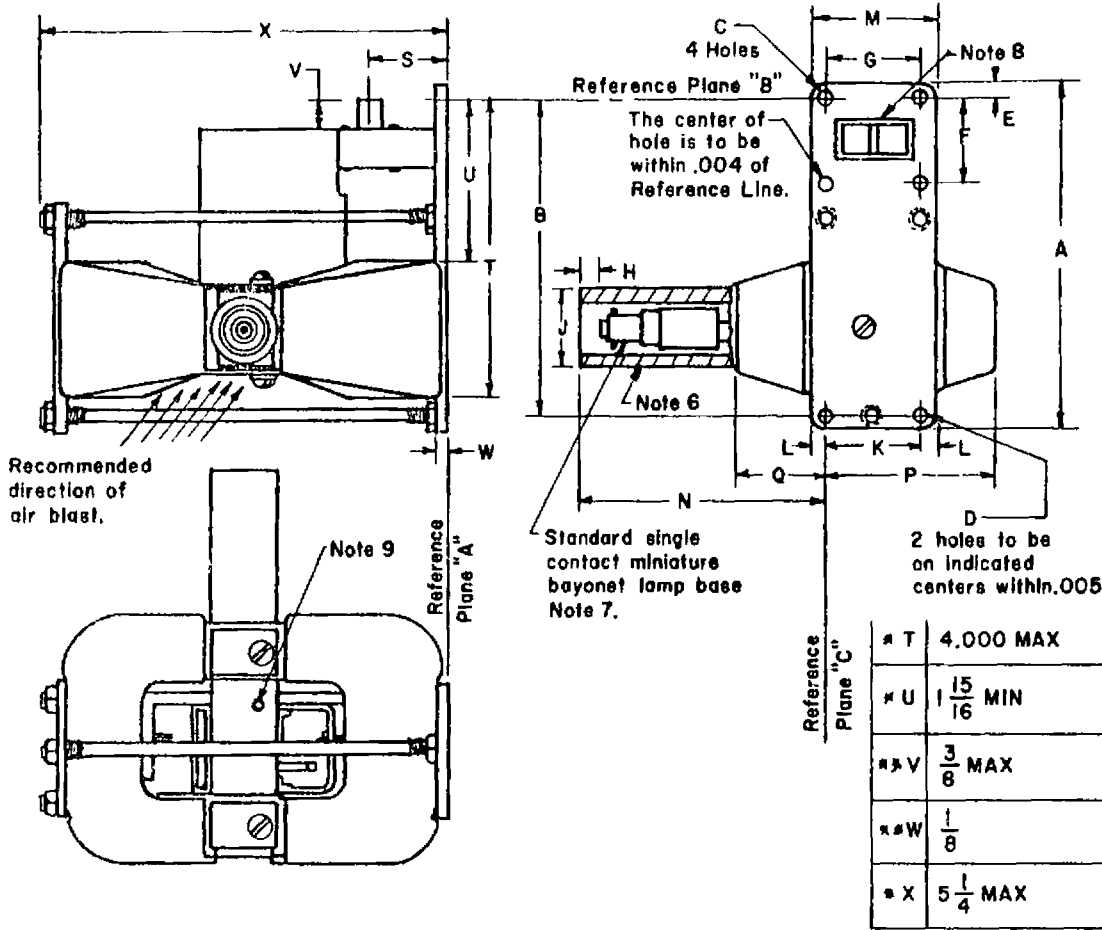
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6027

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NOTES:

2. Reduce heater voltage to 4.5 volts three seconds after applying high voltage.
3. The values specified are based on the "absolute system" and are not to be exceeded under any service conditions. The ratings are limiting values above which serviceability of any individual tube may be impaired. It does not necessarily follow that combinations of absolute maximum ratings can be attained simultaneously.



LTR	DIMENSIONS
A	$4 \frac{29}{64} \pm \frac{1}{64}$
B	4.103
C	$.170 \pm .003 \text{ DIA.}$
D	$.175 \pm .003 \text{ DIA.}$
*E	$\frac{11}{64} \pm \frac{1}{64}$
F	$1.280 \pm .004$
G	$1.220 \pm .004$
*H	$\frac{1}{4} \text{ MAX}$
*J	1.000 MAX
K	1.220
*L	$\frac{13}{64} \pm \frac{1}{64}$
*M	$1 \frac{5}{8} \pm \frac{1}{64}$
*N	$2 \frac{11}{16} \text{ MIN } 3 \frac{3}{16} \text{ MAX}$
*P	$2 \frac{3}{16} \text{ MAX}$
*Q	$1 \frac{3}{16} \text{ MAX}$
**S	$\frac{7}{8} \pm \frac{1}{8}$

- Note 1: Reference plane "B" passes through the centers of the two top holes of the mounting plate as shown and is perpendicular to plane "A".
- Note 2: Reference plane "C" passes through the upper left hole on mounting plate as shown and is mutually perpendicular to planes "A" and "B".
- *Note 3: Surface "A" with tube resting on a flat surface a feeler gauge .020 thick and 1/8 wide shall not enter more than 1/8 at any point.
- **Note 4: Surface "A" and interior surfaces of wave guide shall be plated 10 MSI of gold or 30 MSI of silver.
- Note 5: All metal surfaces except surface "A" and the bayonet base shall be painted black.
- *Note 6: The axis of the filament lead protector must be within 5° of a normal to reference plane "C".
- *Note 7: The clearance between the inside surface of the protector and the 3/8 diameter cylindrical surface of the bayonet base shall not be less than 1/8.
- Note 8: This area is gasketed for pressurizing wave guide output as with coupler UG-40 A/U.
- Note 9: Make anode temperature measurements at this point on round anode surface between radiator fin and pole piece.

FIG. 1
 TYPE 6027 RIEKE DIAGRAM
 Peak Anode Current - 8 Amp
 Pulse Duration - 1 μ sec
 P.R.F. - 1000

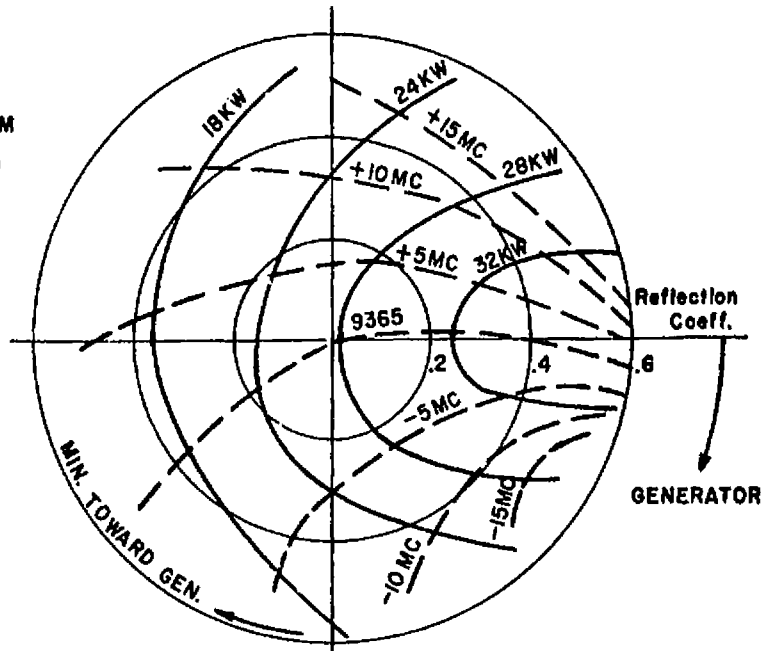
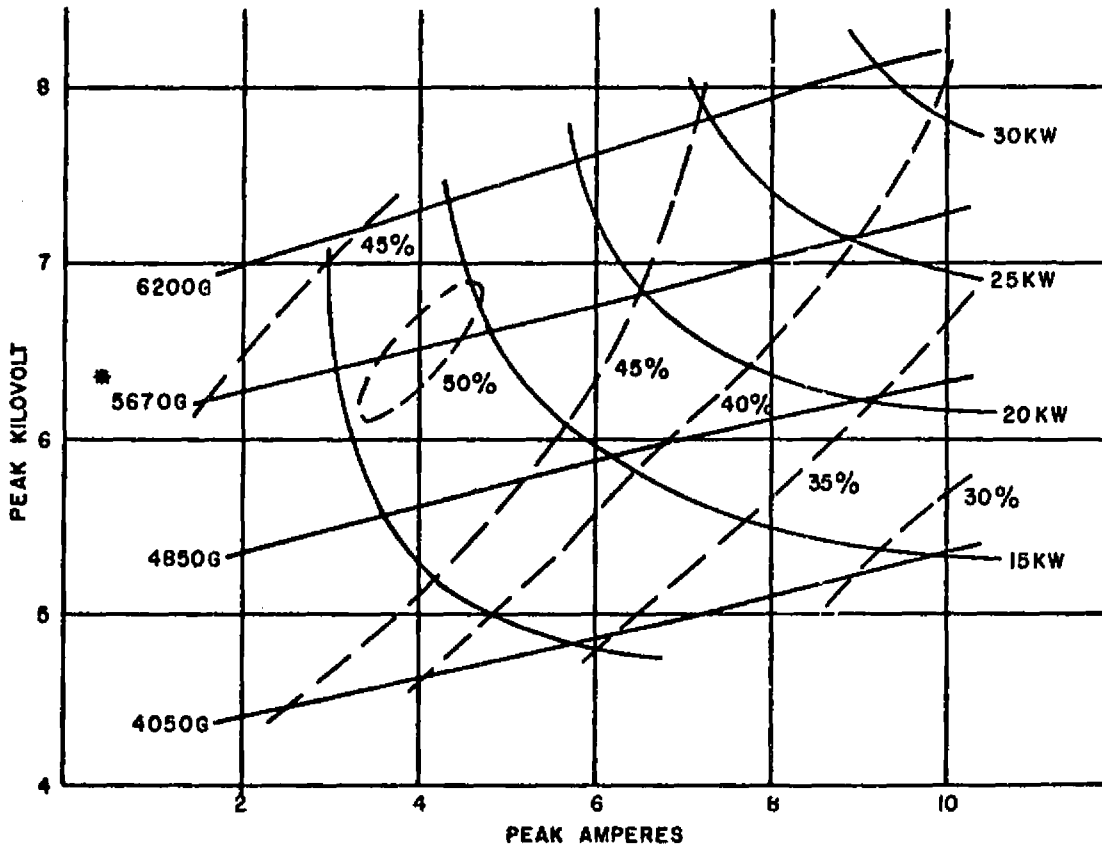


FIG. 2
 TYPE 6027 OPERATING CHARACTERISTICS



* Operating Line for
 Standard Attached
 Magnet.

Frequency 9375 mc/s
 Pulse Duration 1 μ s
 1000 Pulses/s
 15 mc/s pulling (max)