

TO : Lyncean Technologies , Inc.

INSPECTION SHEET

TR000011 Canon Klystron E3730A Inspection Sheet SN 20J104

**HIGH POWER PULSE KLYSTRON
E3730A S/N 20J104**

CANON ELECTRON TUBES & DEVICES CO., LTD.

TEST CLASSIFICATION							APPLIED SPECIFICATION				PRODUCT SPECIFICATION				
AQL	n1	d1	n1+n2	d1+d2	JUDGE	INSPECTION SHEET									
APPEARANCE						TYPE	HIGH POWER PULSE KLYSTRON E3730A				SUPPLY QUANTITY	1	DATE OF INSP.	15-Sep-2020	
PRODUCTION											CHIEF OF INSPECTION SECTION	Y. Tanaka			
DESIGN															
TEST CONDITION ELECTROMAGNET VT-68922															
ITEM	STATIC			DYNAMIC								JUDGE			
	VACUUM CHECK	HEATER CURRENT	BEAM CURRENT	OUTPUT POWER	BEAM VOLTAGE	BEAM CURRENT	DRIVE POWER	GAIN	EFFICIENCY	PERVEANCE	X-ray Leakage				
SYMBOL	Iion	If	ik	po	epy	ik	pd	Gp	η	G					
UNIT	[μ A]	[A]	[A]	[MW]	[kV]	[A]	[W]	[dB]	[%]	[μ A/V ^{1.5}]	[μ Sv/h]				
CONDITION	No operating voltage	Ef=16.6[V] (Ef \leq 20[V])	Ef=16.6[V] epy=310[kV] tp(epy)=6.2[μ s] fp=50[pps]	Ef=16.6[V] fo = 2856 [MHz] , tp(rf) = 4.0 [μ s] , tp(epy) = 6.2 [μ s] , fp = 50 [pps] Isol = (18.3, 29.3, 14.2, 16.7, 12.2, 4.7) [A]											
No.															
20J104	0.01	17.0	352	50.7	320	368	236	53.3	43.0	2.03	9.8				
SPEC	MIN.	-	-	345.2	50	-	-	-	50	42	1.95	-	INSPECTOR		
	PAR	-	-	-	-	-	-	-	-	-	2.1	-	M. Shibasaki		
	MAX.	4.0	20	379.8	-	320	-	500	-	-	2.2	20			

TYPE E3730A series

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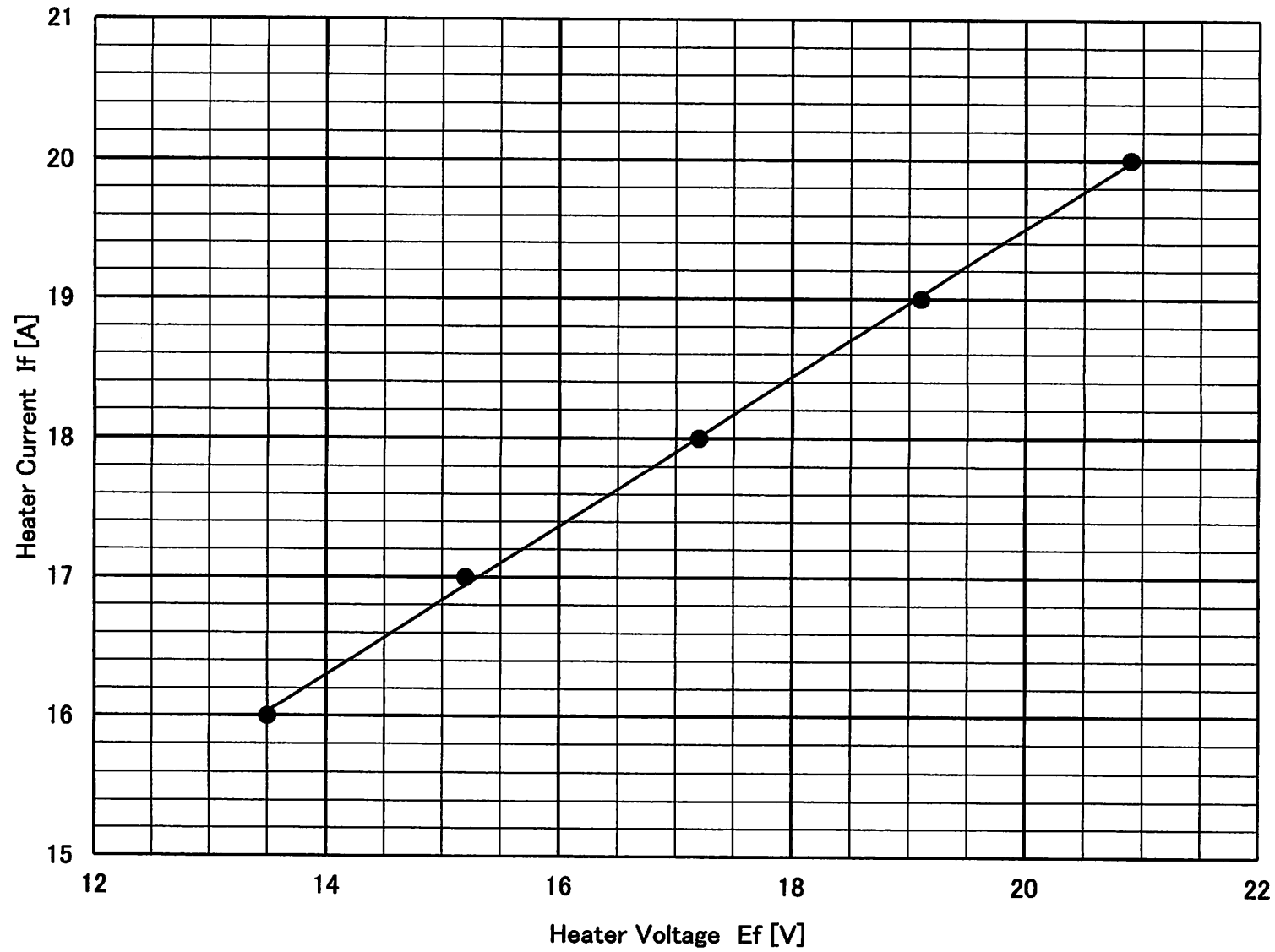
TEST CLASSIFICATION	AQL	n1	d1	n1+n2	d1+d2	JUDGE	INSPECTION SHEET		APPLIED SPECIFICATION	PRODUCT SPECIFICATION		
APPEARANCE							TYPE HIGH POWER PULSE KLYSTRON E3730A		SUPPLY QUANTITY	1	DATE OF INSP.	15-Sep-2020
PRODUCTION									CHIEF OF INSPECTION SECTION	Y. Tanaka		
DESIGN												
TEST CONDITION												
ITEM	HYDROSTATIC PRESSURE		OUTLINE DIMENSION						JUDGE			
SYMBOL	-											
UNIT	-											
CONDITION	P = 0.98 [MPa] (10 [kgf/cm ²]) t = 15 min.		-									
No.												
20J104	OK		OK						OK			
SPEC.	MIN.	No visible leaks		No detectable						INSPECTOR		
	PAR	and no damages		change in the ion								
	MAX.			pump indicator								

TYPE E3730A series

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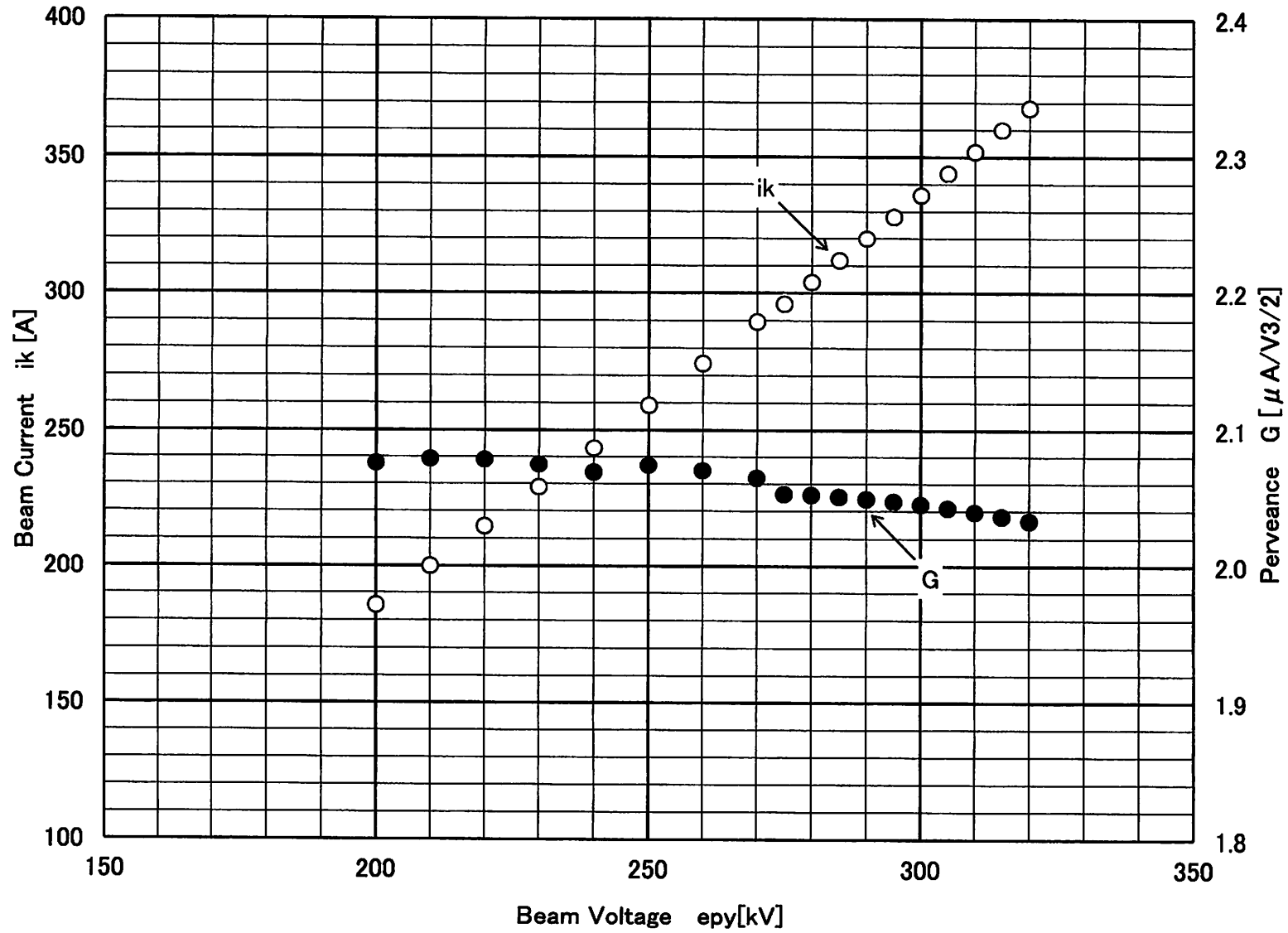
M. Shibasaki

E3730A S/N 20J104 HEATER CHARACTERISTICS



E3730A S/N 20J104 epy-ik CHARACTERISTICS

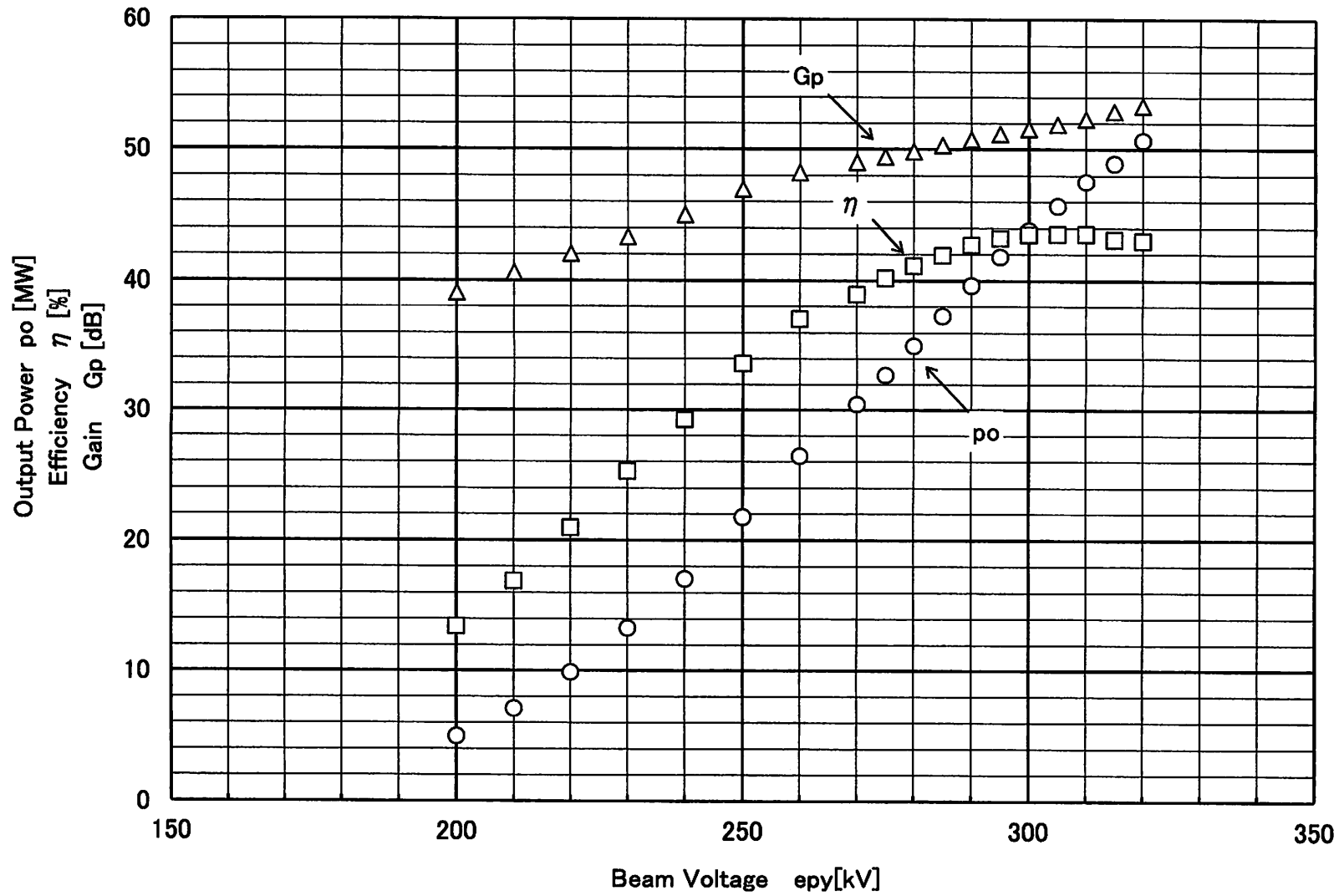
tp(epy) = 6.2 [μ s], prr = 50 [pps]



E3730A S/N 20J104 SATURATED OUTPUT CHARACTERISTICS (1)

$t_p(\text{rf}) = 4.0 \text{ } [\mu\text{s}]$, $p_{rr} = 50 \text{ [pps]}$,

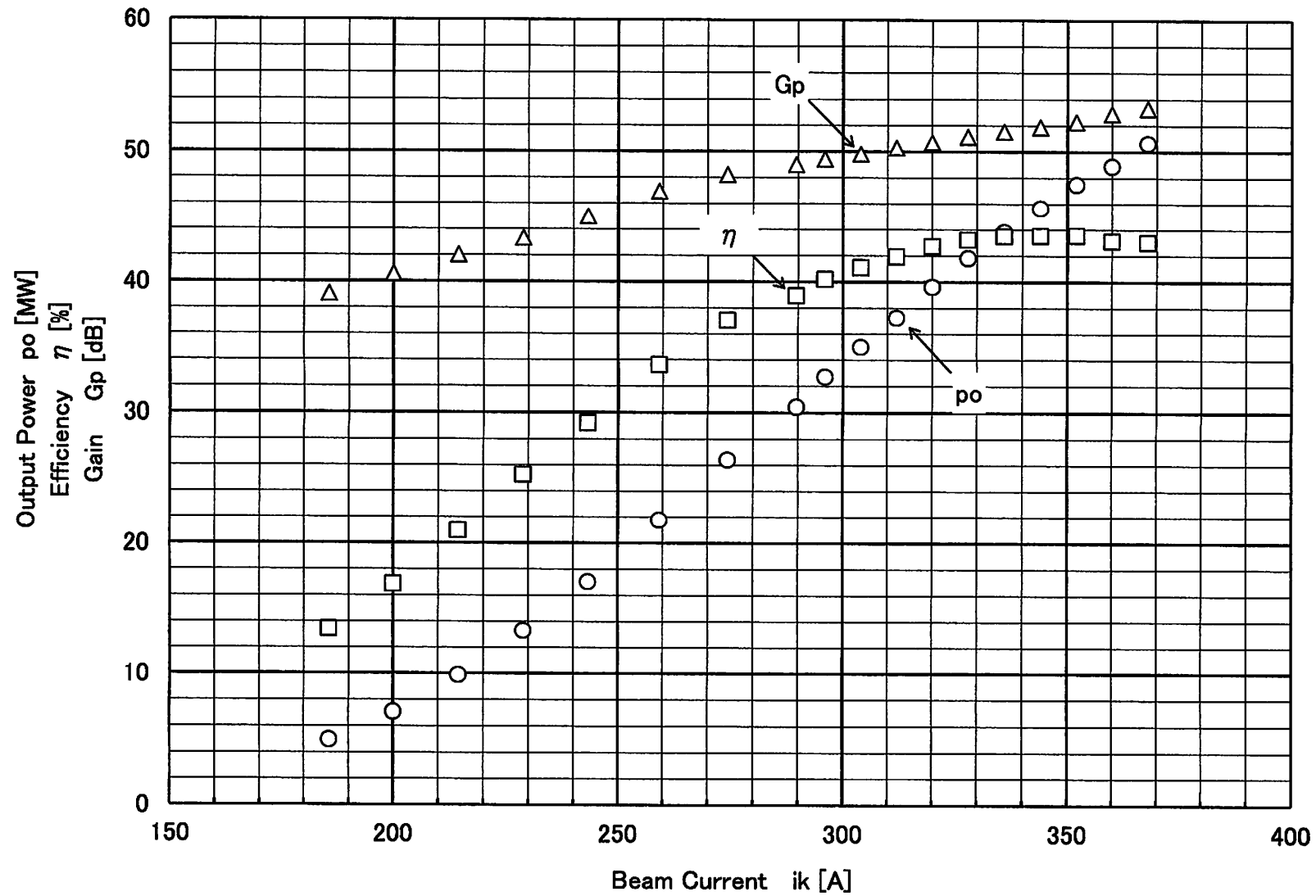
$I_{sol} = (18.3 , 29.3 , 14.2 , 16.7 , 12.2 , 4.7) \text{ [A]}$



E3730A S/N 20J104 SATURATED OUTPUT CHARACTERISTICS (2)

$tp(rf) = 4.0 \text{ } [\mu s]$, $prr = 50 \text{ [pps]}$,

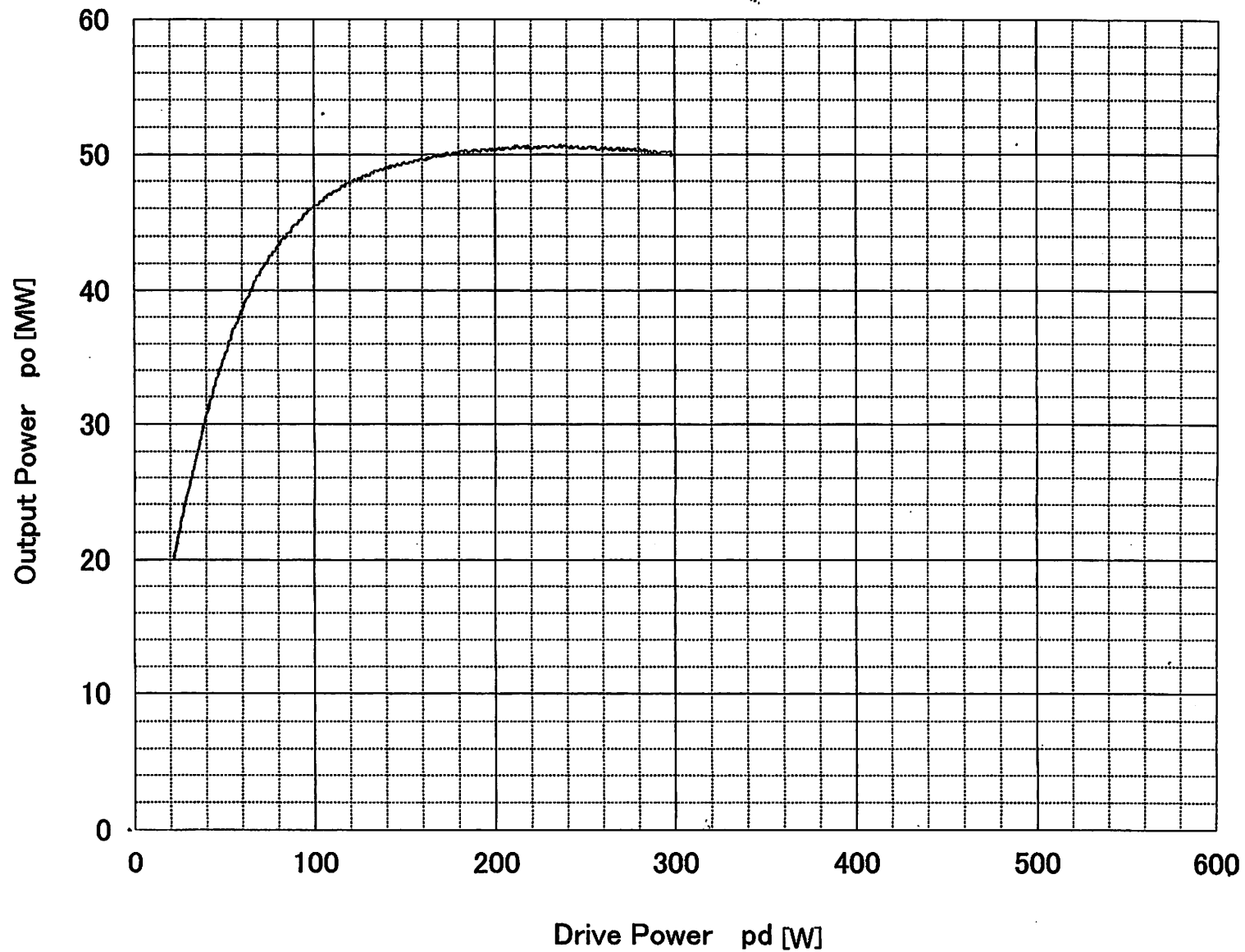
$I_{sol} = (18.3 , 29.3 , 14.2 , 16.7 , 12.2 , 4.7) \text{ [A]}$

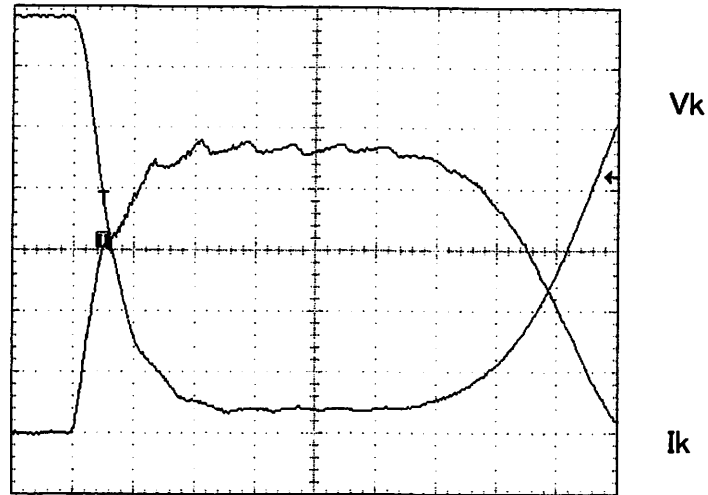


E3730A S/N 20J104 POWER TRANSFER CHARACTERISTICS

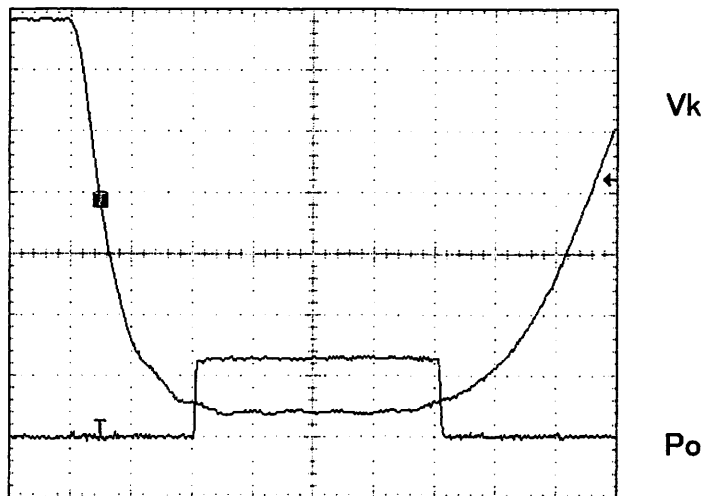
$tp(rf) = 4.0 [\mu s]$, $prf = 50 [pps]$, $epy = 320 [kV]$, $ik = 368 [A]$,

$Isol = (18.3, 29.3, 14.2, 16.7, 12.2, 4.7) [A]$

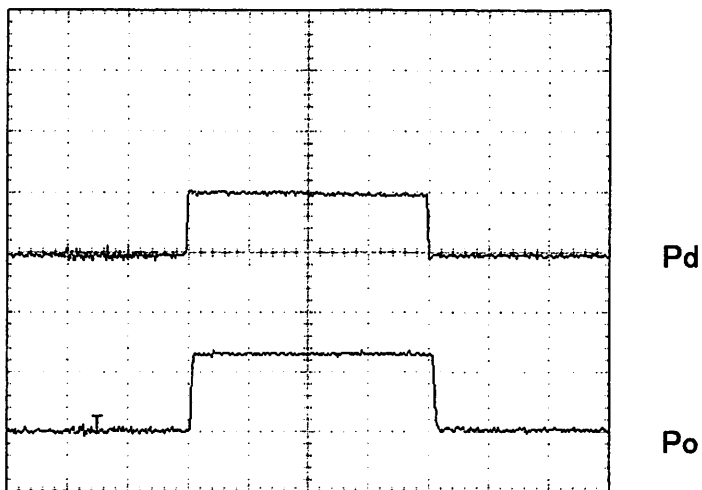




Beam Voltage V_k and Cathode Current I_k
(X-axis: $1[\mu\text{s}/\text{div.}]$, $e_{py} = 320[\text{kV}]$, $i_k = 368[\text{A}]$)



Beam Voltage V_k and Output Power P_o
(X-axis: $1[\mu\text{s}/\text{div.}]$, $e_{py} = 320[\text{kV}]$, $p_o = 50.7[\text{MW}]$)



Drive Power P_d and Output Power P_o
(X-axis: $1[\mu\text{s}/\text{div.}]$, $p_d = 230[\text{W}]$, $p_o = 50.7[\text{MW}]$)