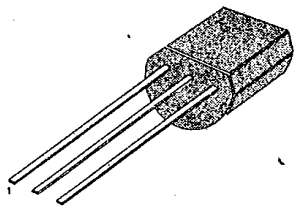
MPS3702 PNP EPITAXIAL SILICON TRANSISTOR

T-29-21

AMPLIFIER TRANSISTOR

- Collector-Emitter Voltage: V_{CEO}=25V
- Collector Dissipation: P_C (max)=625mW

TO-92



1. Emitter 2. Base 3. Collector

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	600	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_J	150	°C
Storage Temperature	Tstg	−55~150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=100μA, I_E=0	40			V
*Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=10mA, I_B=0	25			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=100μA, I_C=0	5			
Collector Cut-off Current	I_{CBO}	V_{CB}=20V, I_E=0			100	nA
Emitter Cut-off Current	I_{EBO}	V_{BE}=3V, I_C=0			100	nA
*DC Current Gain	h_{FE}	I_C=50mA, V_{CE}=5V	60		300	
*Collector-Emitter Saturation Voltage	V_{CE} (sat)	I_C=50mA, I_B=5mA			0.25	V
Output Capacitance	Cob	V_{CB}=10V, I_E=0 f=1MHz			12	pF
Current Gain Bandwidth Product	f_T	I_C=50mA, V_{CE}=5V f=20MHz	100			MHz
Base-Emitter On Voltage	V_{BE} (on)	I_C=50mA, V_{CE}=5V	0.6		1	V

* Pulse Test: Pulse Width≤300μs, Duty Cycle≤2%

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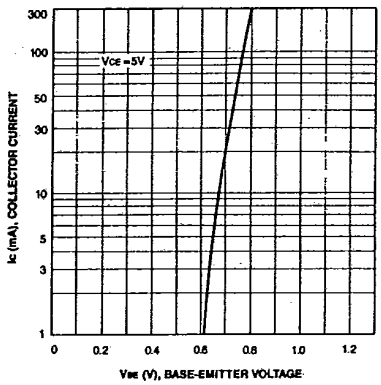
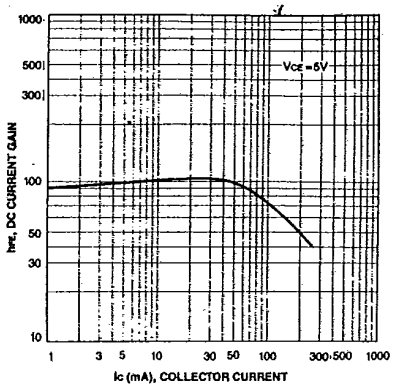
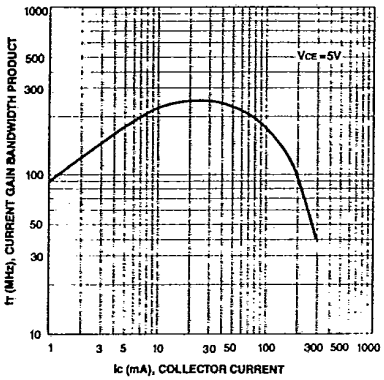
BASE-EMITTER ON VOLTAGE



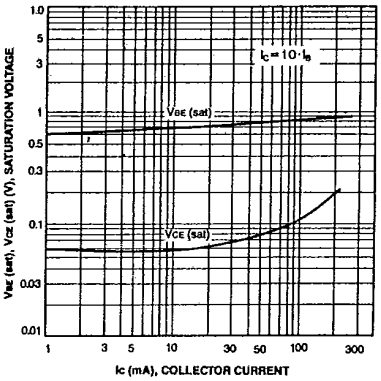
DC CURRENT GAIN



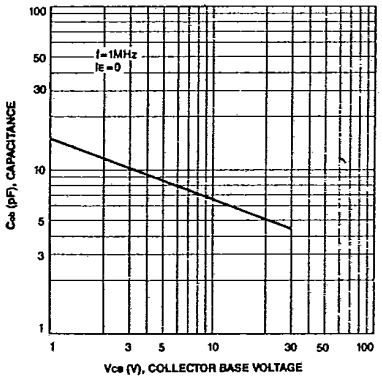
CURRENT GAIN BANDWIDTH PRODUCT



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



OUTPUT CAPACITANCE



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