MPS8598 PNP EPITAXIAL SILICON TRANSISTOR

T-29-21

AMPLIFIER TRANSISTOR

- **Collector-Emitter Voltage: V_{CEO}=60V**
- **Collector Dissipation: P_C (max)=625mW**

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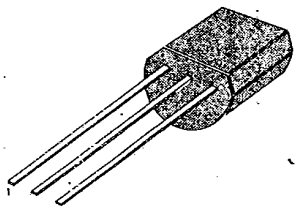

1. Emitter 2. Base 3. Collector

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	500	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-Emitter Breakdown Voltage	BV_{CEO}	I_C=10mA, I_B=0	60			V
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=100μA, I_E=0	60			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=10μA, I_C=0	5			V
Collector Cut-off Current	I_{CEO}	V_{CE}=60V, I_B=0			100	nA
Collector Cut-off Current	I_{CBO}	V_{CB}=60V, I_E=0			100	nA
Emitter Cut-off Current	I_{EBO}	V_{BE}=4V, I_C=0			100	nA
*DC Current Gain	h_{FE}	I_C=1mA, V_{CE}=5V	100		300	
		I_C=10mA, V_{CE}=5V	100			
		I_C=100mA, V_{CE}=5V	75			
*Collector-Emitter Saturation Voltage	V_{CE} (sat)	I_C=100mA, I_B=5mA			0.4	V
		I_C=100mA, I_B=10mA			0.3	V
*Base-Emitter On Voltage	V_{BE} (on)	I_C=1 mA, V_{CE}=5V	0.5		0.7	V
Current Gain Bandwidth Product	f_T	I_C=10mA, V_{CE}=5V f=100MHz	150			MHz
Output Capacitance	Cob	V_{CB}=5V, I_E=0 f=1MHz			8	pF

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

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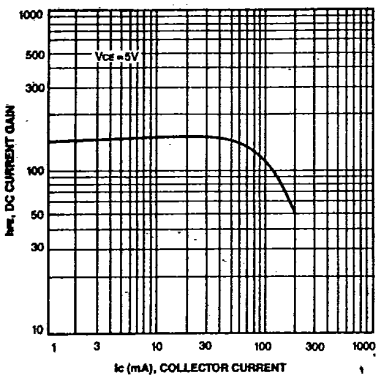
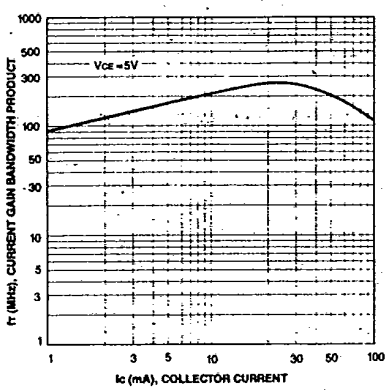
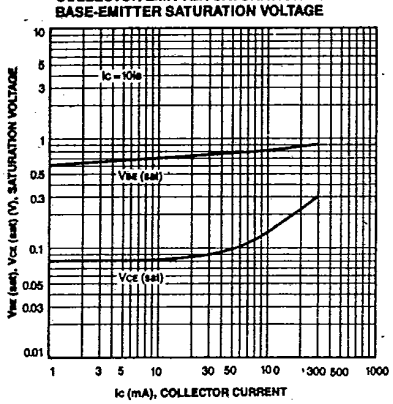
DC CURRENT GAIN



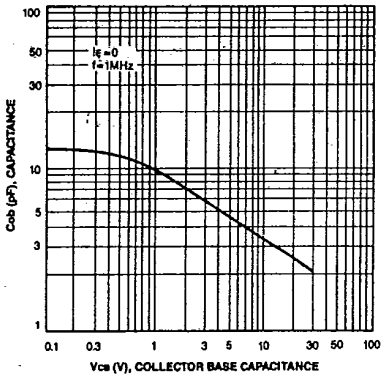
CURRENT GAIN BANDWIDTH PRODUCT



COLLECTOR EMITTER SATURATION VOLTAGE
BASE-EMITTER SATURATION VOLTAGE



OUTPUT CAPACITANCE



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