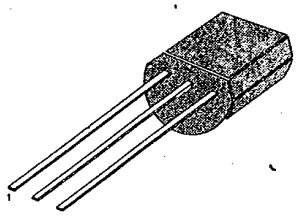
MPS6651 PNP EPITAXIAL SILICON TRANSISTOR

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-Emitter Voltage	V_{CEO}	25	V
Collector-Base Voltage	V_{CBO}	25	V
Emitter-Base Voltage	V_{EBO}	4	V
Collector Current	I_C	1	A
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=1mA, I_B=0	25			V
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=100μA, I_E=0	25			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=10μA, I_C=0	4			V
Collector Cut-off Current	I_{CBO}	V_{CB}=25V, I_E=0			100	nA
Collector Cut-off Current	I_{CEO}	V_{CE}=25V, I_B=0			100	nA
DC Current Gain	h_{FE}	I_C=100mA, V_{CE}=1V	50			
		I_C=500mA, V_{CE}=1V	50			
		I_C=1A, V_{CE}=1V	30			
Collector-Emitter Saturation Voltage	V_{CE} (sat)	I_C=1A, I_B=100mA			0.6	V
Output Capacitance	Cob	V_{CB}=10V, I_E=0 f=100KHz			30	pF
Base-Emitter On Voltage	V_{BE} (on)	I_C=500mA, V_{CE}=1V			1.2	V
Current Gain Bandwidth Product	f_T	I_C=50mA, V_{CE}=10V f=30MHz	100			MHz
Turn On Time	ton	V_{CC}=40V, I_C=500mA I_{B1}=50mA			55	ns
Turn Off Time	toff	V_{CC}=40V, I_C=500mA I_{B1}=50mA			300	ns

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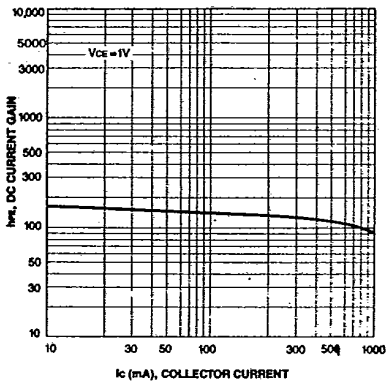
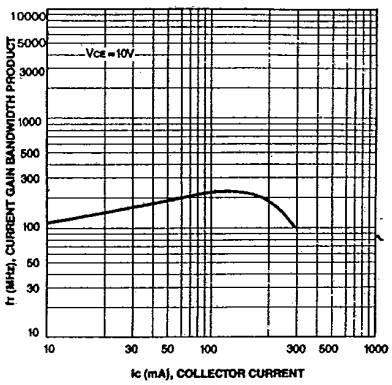
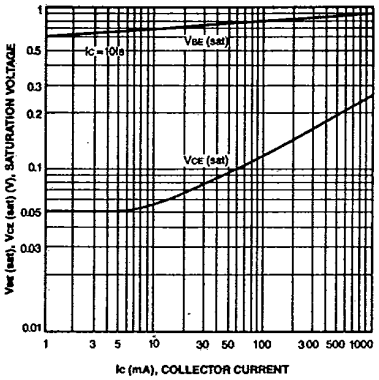
DC CURRENT GAIN



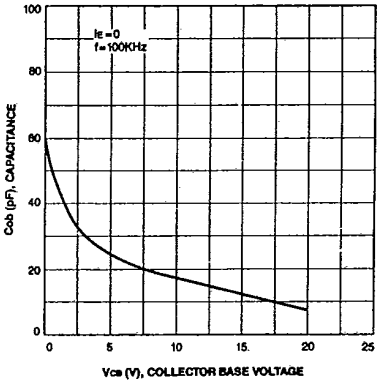
CURRENT GAIN BANDWIDTH PRODUCT



COLLECTOR-EMITTER SATURATION VOLTAGE
BASE-EMITTER SATURATION VOLTAGE



OUTPUT CAPACITANCE



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