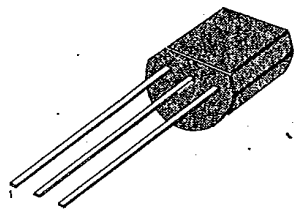
MPS8097 NPN EPITAXIAL SILICON TRANSISTOR

T-29-21

AMPLIFIER TRANSISTOR

- Collector-Emitter Voltage: V_{CEO}=40V
- 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}	60	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	200	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_J	150	°C
Storage Temperature	Tstg	−55 ~ 150	°C

* Refer to 2N5088 for graphs

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	40			V
Collector Cut-off Current	I_{CBO}	V_{CB}=40V, I_E=0			30	nA
		V_{CB}=60V, I_E=0			10	nA
Emitter Cut-off Current	I_{EBO}	V_{BE}=6V, I_C=0			20	nA
*DC Current Gain	h_{FE}	I_C=100μA, V_{CE}=5V	250		700	
Output Capacitance	Cob	V_{CB}=5V, I_E=0 f=1MHz	1		4	pF
*Base-Emitter On Voltage	V_{BE} (on)	I_C=100μA, V_{CE}=5V	0.45		0.65	V
Noise Figure	NF	I_C=100μA, V_{CE}=5V R_S=10KΩ, f=10Hz			2	dB

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