

MPS2907**PNP EPITAXIAL SILICON TRANSISTOR**

T-29-21

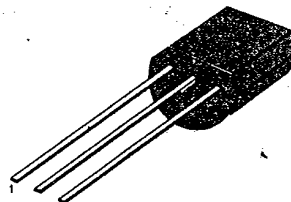
GENERAL PURPOSE TRANSISTOR

- Collector-Emitter Voltage: $V_{CE0} = 40V$
- Collector Dissipation: $P_C (\text{max}) = 625mW$

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ C$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	60	V
Collector-Emitter Voltage	V_{CE0}	40	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current	I_C	600	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{stg}	-55 ~ 150	$^\circ C$

TO-92



1. Emitter 2. Base 3. Collector

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CB0}	$I_C = 10\mu A, I_E = 0$	60			V
*Collector-Emitter Breakdown Voltage	BV_{CE0}	$I_C = 10mA, I_B = 0$	40			V
Emitter-Base Breakdown Voltage	BV_{EB0}	$I_E = 10\mu A, I_C = 0$	5			V
Collector Cut-off Current	I_{CBO}	$V_{CB} = 50V, I_E = 0$			20	nA
DC Current Gain	h_{FE}	$I_C = 0.1mA, V_{CE} = 10V$	35			
		$I_C = 1mA, V_{CE} = 10V$	50			
		$I_C = 10mA, V_{CE} = 10V$	75			
		* $I_C = 150mA, V_{CE} = 10V$	100		300	
		* $I_C = 500mA, V_{CE} = 10V$	30			
*Collector-Emitter Saturation Voltage	$V_{CE} (\text{sat})$	$I_C = 150mA, I_B = 15mA$			0.4	V
		$I_C = 500mA, I_B = 50mA$			1.6	V
*Base-Emitter Saturation Voltage	$V_{BE} (\text{sat})$	$I_C = 150mA, I_B = 15mA$			1.3	V
		$I_C = 500mA, I_B = 50mA$			2.6	V
Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0$			8	pF
		$f = 1MHz$				
*Current Gain Bandwidth Product	f_T	$I_C = 50mA, V_{CE} = 20V$	200			MHz
		$f = 100MHz$				
Turn On Time	t_{on}	$V_{CC} = 30V, I_C = 150mA$			45	ns
		$I_{B1} = 15mA$				
Turn Off Time	t_{off}	$V_{CC} = 6V, I_C = 150mA$			100	ns
		$I_{B1} = I_{B2} = 15mA$				

* Pulse Test: Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2\%$
 Also available as a PN2907



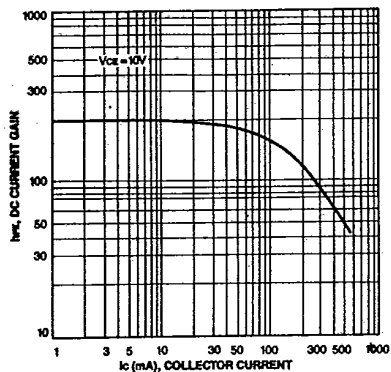
SAMSUNG SEMICONDUCTOR

MPS2907

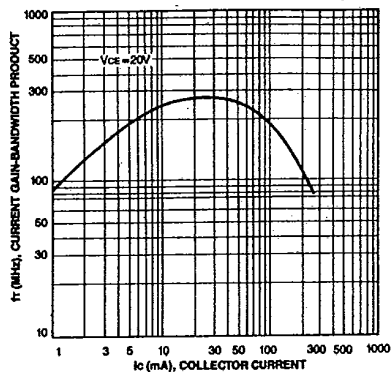
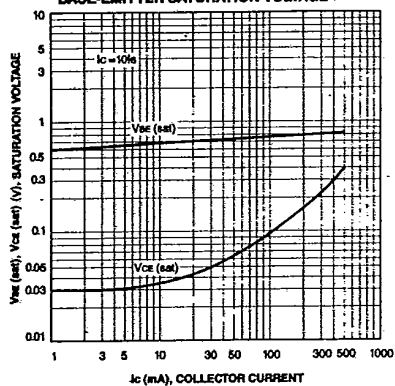
PNP EPITAXIAL SILICON TRANSISTOR

T-29-21

DC CURRENT GAIN



CURRENT GAIN-BANDWIDTH PRODUCT

COLLECTOR-EMITTER SATURATION VOLTAGE
BASE-EMITTER SATURATION VOLTAGE

OUTPUT CAPACITANCE

