

**MPS6602****NPN EPITAXIAL SILICON TRANSISTOR**

T-29-21

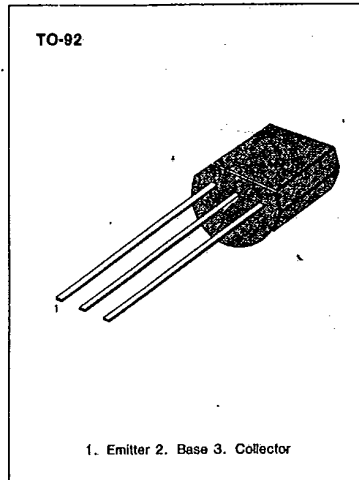
**AMPLIFIER TRANSISTOR**

- 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	$V_{CB0}$	30	V
Collector-Emitter Voltage	$V_{CE0}$	40	V
Emitter-Base Voltage	$V_{EB0}$	4	V
Collector Current	$I_C$	1000	mA
Collector Dissipation	$P_C$	625	mW
Junction Temperature	$T_J$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 ~ 150	$^\circ C$

- Refer to MPS6601 for graphs



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

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage	$BV_{CE0}$	$I_C = 1mA, I_B = 0$	40			V
Collector-Base Breakdown Voltage	$BV_{CB0}$	$I_C = 100\mu A, I_E = 0$	40			V
Emitter-Base Breakdown Voltage	$BV_{EB0}$	$I_E = 10\mu A, I_C = 0$	4			V
Collector Cut-off Current	$I_{CE0}$	$V_{CE} = 30V, I_B = 0$			100	nA
Collector Cut-off Current	$I_{CB0}$	$V_{CB} = 30V, I_E = 0$			100	nA
DC Current Gain	$h_{FE}$	$I_C = 100mA, V_{CE} = 1V$	50			
		$I_C = 500mA, V_{CE} = 1V$	50			
		$I_C = 1000mA, V_{CE} = 1V$	30			
Collector-Emitter Saturation Voltage	$V_{CE} (\text{sat})$	$I_C = 1000mA, I_B = 100mA$			0.6	V
Current Gain Bandwidth Product	$f_T$	$I_C = 50mA, V_{CE} = 10V$ $f = 30MHz$	100			MHz
Output Capacitance	$C_{ob}$	$V_{CB} = 10V, I_E = 0$ $f = 100KHz$			30	pF

