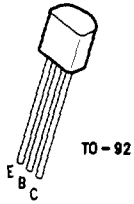
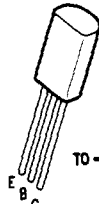
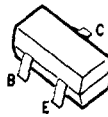


**MPSA56**

**TO-92**

TL/G/10100-1

**MPSW56**

**TO-226AE**

TL/G/10100-4

**MMBTA56**

**TO-236  
(SOT-23)**

TL/G/10100-5

**PNP General Purpose Amplifier**
**Electrical Characteristics**  $T_A = 25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Min	Max	Units
<b>OFF CHARACTERISTICS</b>				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage, (Note 1) ( $I_C = 1.0 \text{ mAdc}$ , $I_B = 0$ )	80		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ( $I_E = 100 \mu\text{Adc}$ , $I_C = 0$ )	4.0		Vdc
$I_{CEO}$	Collector Cutoff Current ( $V_{CE} = 60 \text{ Vdc}$ , $I_B = 0$ )		0.1	$\mu\text{Adc}$
$I_{CBO}$	Collector Cutoff Current ( $V_{CB} = 80 \text{ Vdc}$ , $I_E = 0$ )		0.1	$\mu\text{Adc}$
<b>ON CHARACTERISTICS</b>				
$h_{FE}$	DC Current Gain ( $I_C = 10 \text{ mAdc}$ , $V_{CE} = 1.0 \text{ Vdc}$ ) ( $I_C = 100 \text{ mAdc}$ , $V_{CE} = 1.0 \text{ Vdc}$ )	50 50		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C = 100 \text{ mAdc}$ , $I_B = 10 \text{ mAdc}$ )		0.25	Vdc
$V_{BE(on)}$	Base-Emitter On Voltage ( $I_C = 100 \text{ mAdc}$ , $V_{CE} = 1.0 \text{ Vdc}$ )		1.2	Vdc
<b>SMALL-SIGNAL CHARACTERISTICS</b>				
$f_T$	Current-Gain—Bandwidth Product ( $I_C = 100 \text{ mAdc}$ , $V_{CE} = 1.0 \text{ Vdc}$ , $f = 100 \text{ MHz}$ )	50		MHz

**Note 1:** Pulse Test: Pulse Width  $\leq 300 \mu\text{s}$ , Duty Cycle  $\leq 2.0\%$ .

**Note 2:** For characteristics curves, see Process 67.