

**LEAD MOUNTED TRANSISTORS**

T-27-15

**NPN TRANSISTORS TO-92 PLASTIC CASE**625 mW @  $T_L = 25^\circ\text{C}$  (2mm FROM CASE)CHARACTERISTICS @  $T_A 25^\circ\text{C}$ STORAGE/OPERATING TEMPERATURE  $-55^\circ\text{C}$  to  $+150^\circ\text{C}$ 

Type Number	$V_{CE0}$	$h_{FE}$ @ $V_{CE}/I_C$	$V_{CE SAT}$ @ $I_C/I_B$	$I_{CES}$ @ $V_{CE}$	$f_T$ @ $V_{CE}/I_C$	$C_{OB}$ @ $V_{CB}$
	Volts	V/mA	max.V mA/mA	max.nA V	MHz V/mA	max.pF V
2N3903	40	50-150 1/10	0.3 50/5	50 <sup>(2)</sup> 30	min.250 20/10	4 5
2N3904	40	100-300 1/10	0.3 50/5	50 <sup>(2)</sup> 30	min.300 20/10	4 5
2N4400	40	50-150 1/150	0.75 500/50	100 <sup>(3)</sup> 35	min.200 10/20	6.5 5
2N4401	40	100-300 1/150	0.75 500/50	100 <sup>(3)</sup> 35	min.250 10/20	6.5 5
IPS2221	30	40-120 10/150	1.6 500/50	10 <sup>(1)</sup> 50	min.250 20/20	8.0 10
IPS2221A	40	40-120 10/150	1.0 500/50	10 <sup>(1)</sup> 60	min.250 20/20	8.0 10
IPS2222	30	100-300 10/150	1.6 500/50	10 <sup>(1)</sup> 50	min.250 20/20	8.0 10
IPS2222A	40	100-300 10/150	1.0 500/50	10 <sup>(1)</sup> 60	min.300 20/20	8.0 10

(1)  $I_{CBO}$ (2)  $I_{CEV}$  at  $V_{EB} = 3V$ (3)  $I_{CEV}$  at  $V_{EB} = 0.4V$ **NPN TRANSISTORS - EUROPEAN TYPES - TO-92 PLASTIC CASE**CHARACTERISTICS @  $T_A 25^\circ\text{C}$ 

Type Number	$V_{CE0}$	$h_{FE}$ @ $V_{CE}/I_C$	$V_{CE SAT}$ @ $I_C/I_B$	$I_{CES}$ @ $V_{CE}$	$f_T$ @ $V_{CE}/I_C$	$C_{OB}$ @ $V_{CB}$
	Volts	V/mA	max.V mA/mA	max.nA V	MHz V/mA	max.pF V
BC337	45	100-630 1/100	0.7 500/50	100 45	100 5/10	typ.12 10
BC337-16	45	100-250 1/100	0.7 500/50	100 45	100 5/10	typ.12 10
BC337-25	45	160-400 1/100	0.7 500/50	100 45	100 5/10	typ.12 10
BC337-40	45	250-630 1/100	0.7 500/50	100 45	100 5/10	typ.12 10
BC547A	45	110-220 5/2	0.6 100/5	15 50	300 5/10	6.0 10
BC547B	45	200-450 5/2	0.6 100/5	15 50	300 5/10	6.0 10
BC547C	45	420-800 5/2	0.6 100/5	15 50	300 5/10	6.0 10
BC548A	30	110-220 5/2	0.6 100/5	15 30	300 5/10	6.0 10
BC548B	30	200-450 5/2	0.6 100/5	15 30	300 5/10	6.0 10
BC548C	30	420-800 5/2	0.6 100/5	15 30	300 5/10	6.0 10

**PNP TRANSISTORS - TO-92 PLASTIC CASE**625 mW @  $T_L = 25^\circ\text{C}$  (2mm FROM CASE)CHARACTERISTICS @  $T_A 25^\circ\text{C}$ STORAGE/OPERATING TEMPERATURE  $-55^\circ\text{C}$  to  $+150^\circ\text{C}$ 

Type Number	$V_{CE0}$	$h_{FE}$ @ $V_{CE}/I_C$	$V_{CE SAT}$ @ $I_C/I_B$	$I_{CES}$ @ $V_{CE}$	$f_T$ @ $V_{CE}/I_C$	$C_{OB}$ @ $V_{CB}$
	Volts	V/mA	max.V mA/mA	max.nA V	MHz V/mA	max.pF V
IPS2907	40	100-300 10/150	1.6 500/50	20 <sup>(1)</sup> 50	min.200 20/50	8 10
IPS2907A	60	100-300 10/150	1.6 500/50	10 <sup>(1)</sup> 50	min.200 20/50	8 10
2N3905	40	50-150 1/10	0.4 50/5	50 <sup>(2)</sup> 30	min.200 20/10	4.5 5
2N3906	40	100-300 1/10	0.4 50/5	50 <sup>(2)</sup> 30	min.250 20/10	4.5 5
2N4402	40	50-150 1/150	0.75 500/50	100 <sup>(3)</sup> 35	min.150 10/20	8.5 5
2N4403	40	100-300 1/150	0.75 500/50	100 <sup>(3)</sup> 35	min.200 10/20	8.5 5
ITTA55	60	min.50 1/100	0.25 100/10	100 <sup>(1)</sup> 60	min.100 2/10	—
ITTA56	80	min.50 1/100	0.25 100/10	100 <sup>(1)</sup> 80	min.100 2/10	—

(1)  $I_{CBO}$ (2)  $I_{CEV}$  at  $V_{EB} = 3V$ (3)  $I_{CEV}$  at  $V_{EB} = 0.4V$ **PNP TRANSISTORS - EUROPEAN TYPES - TO-92 PLASTIC CASE**CHARACTERISTICS @  $T_A 25^\circ\text{C}$ 

Type Number	$V_{CE0}$	$h_{FE}$ @ $V_{CE}/I_C$	$V_{CE SAT}$ @ $I_C/I_B$	$I_{CES}$ @ $V_{CE}$	$f_T$ @ $V_{CE}/I_C$	$C_{OB}$ @ $V_{CB}$
	Volts	V/mA	max.V mA/mA	max.nA V	MHz V/mA	max.pF V
BC327	45	100-630 1/100	0.7 500/50	100 45	100 5/10	typ.12 10
BC327-16	45	100-250 1/100	0.7 500/50	100 45	100 5/10	typ.12 10
BC327-25	45	160-400 1/100	0.7 500/50	100 45	100 5/10	typ.12 10
BC327-40	45	250-630 1/100	0.7 500/50	100 45	100 5/10	typ.12 10
BC557A	45	110-220 5/2	0.65 100/5	15 50	150 5/10	6.0 10
BC557B	45	200-450 5/2	0.65 100/5	15 50	150 5/10	6.0 10
BC557C	45	420-800 5/2	0.65 100/5	15 50	150 5/10	6.0 10
BC558A	30	110-220 5/2	0.65 100/5	15 30	150 5/10	6.0 10
BC558B	30	200-450 5/2	0.65 100/5	15 30	150 5/10	6.0 10
BC558C	30	420-800 5/2	0.65 100/5	15 30	150 5/10	6.0 10