

NPN SILICON SIGNAL HIGH CURRENT GENERAL PURPOSE AMPLIFIERS AND SWITCHES TO-18 PACKAGE

| Type | h_{FE} @ 2V, 2mA | V_{CE0} @ 10mA Min. (V) | $V_{CE(sat)}$ @ 50mA, 50mA Max. (V) | P_T $T_A=25^\circ C$ (mW) | C_{cb} @ 10V Typical (pF) | f_t Typical (MHz) | PNP COMPLE- MENT | Comments | Package Outline No. | Specifi- cation Sheet No. |
|--------|--------------------------|------------------------------------|---|-----------------------------------|--------------------------------------|---------------------------|------------------------|---|---------------------------|------------------------------------|
| 2N5810 | 60-200 ⁵ | 25 | | | | 150 | 2N5811 | Excellent beta holdup of wide range of collector currents. Heatsinked versions ² and complementary PNP's available. Excellent as audio drivers and outputs. | 175 | 40.88 |
| 2N5812 | 150-500 ⁶ | | | | | 165 | 2N5813 | | | |
| 2N5814 | 60-120 | 40 | .75 | 500 ^{1,2} | 9.4 | 150 | 2N5815 | | | |
| 2N5816 | 100-200 | | | | | 165 | 2N5817 | | | |
| 2N5818 | 150-300 | 60 | | | | 180 | 2N5819 | | | |
| 2N5820 | 60-120 | | | | | 150 | 2N5821 | | | |
| 2N5822 | 100-200 | | | | | 165 | 2N5823 | | 40.90 | |
| 2N6010 | 100-300 ³ | 40 | | | | 150 | 2N6011 | General purpose device designed primarily for high level linear amplifiers, medium speed switching and control applications. Excellent beta linearity up to 800mA. Heatsink versions and complements available. | 175 | 40.97 |
| 2N6012 | 250-500 ³ | | | | | 180 | 2N6013 | | | |
| 2N6014 | 100-300 ³ | .250 ⁴ | 500 ^{1,2} | 9.4 | 150 | 2N6015 | | | | |
| 2N6016 | 250-500 ³ | 60 | | | 180 | 2N6017 | | | | |

¹ P_T at $T_C=25^\circ C$, 1000mW

² All units available with heatsink which raises P_T to 700mW, $T_A=25^\circ C$; to specify a heatsink, substitute "HS" for "2N" in part no. Example: 2N5810 with heatsink is an HS5810. See page 20.

³ h_{FE} measured at $V_{CE}=1V$, $I_C=10mA$

⁴ $V_{CE(sat)}$ measured at $I_C=300mA$, $I_B=30mA$

⁵ 45 min h_{FE} @ $V_{CE}=2V$, $I_C=500mA$

⁶ 60 min h_{FE} @ $V_{CE}=2V$, $I_C=500mA$

PNP SILICON SIGNAL GENERAL PURPOSE SMALL SIGNAL AMPLIFIERS AND SWITCHES TO-18 PACKAGE

| Type | h_{FE} @ -1V -10mA | V_{CE0} @ -10mA Min. (V) | $V_{CE(sat)}$ @ -10mA -1mA Max. (V) | P_T $T_A=25^\circ C$ (mW) | C_{cb} @ -10V 1MHz Max. (pF) | f_t Typical (MHz) | Comments | Package Outline No. | Specifi- cation Sheet No. |
|----------|----------------------------|-------------------------------------|---|-----------------------------------|--|---------------------------|---|---------------------------|------------------------------------|
| 2N6001 | 100-300 | -25 | | | | 340 | Ideal for general purpose amplifiers, high speed switching, and low noise applications. Excellent beta linearity from 10uA to 300 mA as well as guaranteed NF and switching times. NPN complements available as 2N6000, 2N6002, 2N6004, 2N6006. | 175 | 40.94 |
| 2N6003 | 230-500 | | -100 | 400 | 8.0 | 400 | | | |
| 2N6005 | 100-300 | -40 | | | | 340 | | | |
| 2N6007 | 250-500 | | | | | 400 | | | |
| GET3638 | 20 min ¹ | -25V | -250 ² | 400 | 8.0 | 150 | Epoxy replacements for 2N3638 and 2N3638A. General purpose amplifier and medium speed switch. | 175 | 41.22 |
| GET3638A | 100 min ¹ | | | | | | | | |

¹ h_{FE} @ $V_{CE}=-10V$, $I_C=-10mA$

² $V_{CE(sat)}$ @ $I_C=-50mA$, $I_B=-2.5mA$

PNP SILICON SIGNAL HIGH SPEED SWITCHES TO-18 PACKAGE

| Type | h_{FE} @ -10V -150mA | V_{CE0} @ -10mA Min. (V) | $V_{CE(sat)}$ @ -150mA -15mA Max. (V) | P_T $T_A=25^\circ C$ (mW) | C_{cb} @ -10V 1MHz Max. (pF) | f_t Typical (MHz) | t_{on} MAX (nsec) | t_{off} MAX (nsec) | Comments | Package Outline No. | Specifi- cation Sheet No. |
|---------|------------------------------|-------------------------------------|---|-----------------------------------|--|---------------------------|---------------------------|----------------------------|--|---------------------------|------------------------------------|
| GET2904 | 40-120 | | | | | 200 | | | Epoxy replacements for 2N2904, 2N2905, 2N2906, 2N2907. GET2904 and GET2905 are lead formed to TO-5 pin circle. | 175 | 45.67 |
| GET2906 | | | | | | | | | | | |
| GET2905 | -40 | -0.4 | 400 | 8 | 50 ¹ | 110 ¹ | | | | | |
| GET2907 | 100-300 | | | | | 250 | | | | | |

¹ max switching times @ $I_C=-150mA$, $I_{B1}=I_{B2}=-15mA$