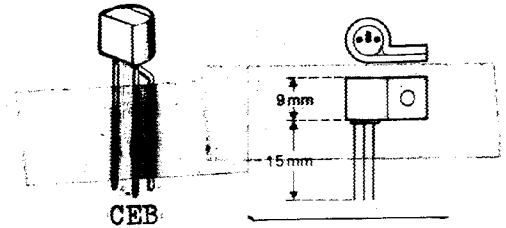


2N5810 THROUGH 2N5819

COMPLEMENTARY SILICON AF MEDIUM POWER TRANSISTORS

THE 2N5810 THROUGH 2N5819 ARE SILICON PLANAR EPITAXIAL TRANSISTORS FOR USE IN AF DRIVERS AND OUTPUTS, AS WELL AS FOR UNIVERSAL APPLICATIONS. THEY ARE SUPPLIED IN TO-92F PLASTIC CASE WITH OPTIONAL X-67 HEAT SINK. THE 2N5810, 2, 4, 6, 8 ARE NPN AND ARE COMPLEMENTARY TO THE PNP 2N5811, 3, 5, 7, 9.

CASE TO-92F WITH X-67
LEAD PREFORMED HEAT SINK

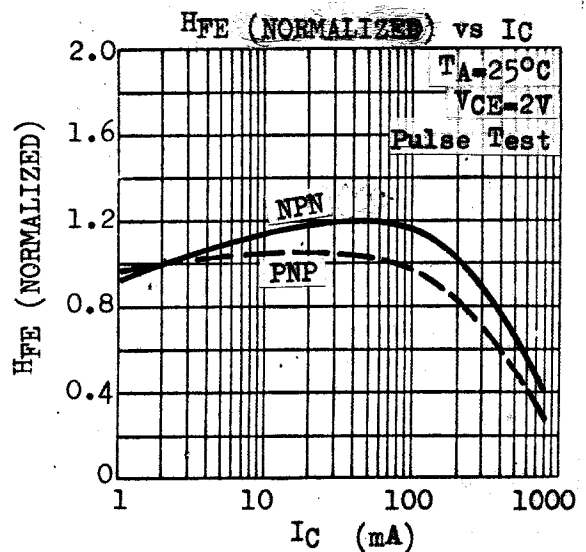
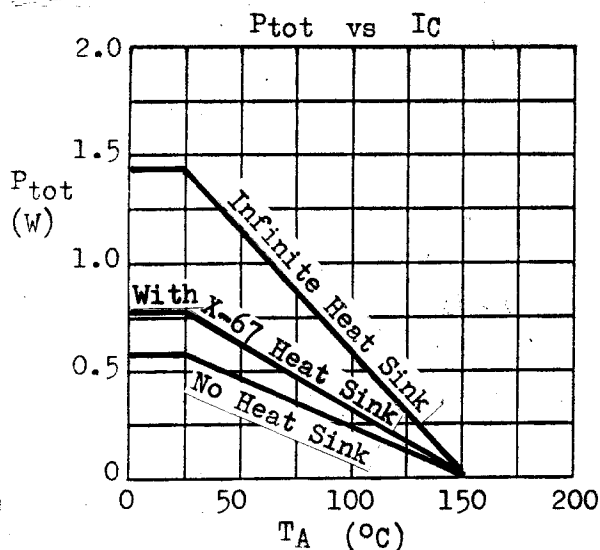


ABSOLUTE MAXIMUM RATINGS

For p-n-p devices, voltage and current values are negative.

		2N5810, 2(NPN) 2N5811, 3(PNP)	2N5814, 6, 8(NPN) 2N5815, 7, 9(PNP)
Collector-Base Voltage	V_{CB0}	35V	50V
Collector-Emitter Voltage ($V_{BE}=0$)	V_{CES}	35V	50V
Collector-Emitter Voltage ($I_B=0$)	V_{CEO}	25V	40V
Emitter-Base Voltage	V_{EBO}	5V	
Collector Current	I_C	0.75A	
Collector Peak Current ($t \leq 10\text{ms}$)	I_{CM}	1.5A	
Total Power Dissipation @ $T_C \leq 25^\circ\text{C}$	P_{tot}	1.4W	
With X-67 Heat Sink @ $T_A \leq 25^\circ\text{C}$		800mW	
No Heat Sink @ $T_A \leq 25^\circ\text{C}$		625mW **	
Operating Junction & Storage Temperature	T_j, T_{stg}	-55 to 150°C	

** 500mW in JEDEC registration.



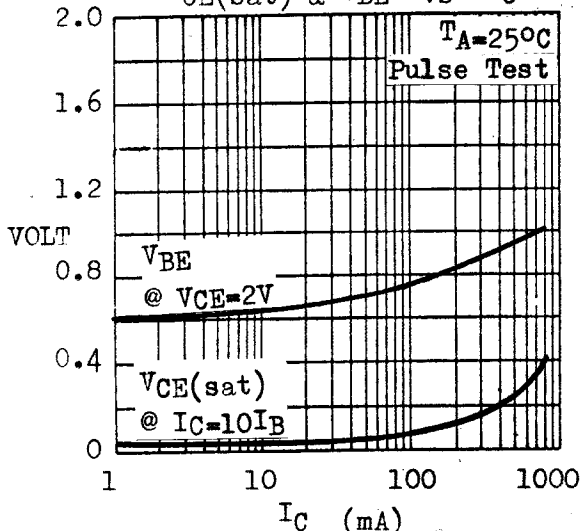
MICRO ELECTRONICS LTD.

38 HUNG TO ROAD, KWUN TONG, HONG KONG. TELEX 43510
KWUN TONG P. O. BOX 69477 CABLE ADDRESS "MICROTRON"
TELEPHONE:- 3-430181-6 3-893363, 3-892429
FAX: 3-410321

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	2N5810 thru' 2N5819 MIN MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage 2N5810, 1, 2, 3 2N5814, 5, 6, 7, 8, 9	BVCES	35 50	V V	$I_C=0.01\text{mA}$ $V_{BE}=0$
Collector-Emitter Breakdown Voltage 2N5810, 1, 2, 3 2N5814, 5, 6, 7, 8, 9	LVCEO *	25 40	V V	$I_C=10\text{mA}$ $I_B=0$
Collector Cutoff Current	ICBO	100	nA	$V_{CB}=25\text{V}$ $I_E=0$
		15	μA	$V_{CB}=25\text{V}$ $I_E=0$ $T_A=100^\circ\text{C}$
Emitter Cutoff Current	IEBO	10	μA	$V_{EB}=5\text{V}$ $I_C=0$
Collector-Emitter Saturation Voltage	VCE(sat)*	0.75	V	$I_C=500\text{mA}$ $I_B=50\text{mA}$
Base-Emitter Saturation Voltage	VBE(sat)*	1.2	V	$I_C=500\text{mA}$ $I_B=50\text{mA}$
Base-Emitter Voltage	VBE *	0.6 1.1	V	$I_C=500\text{mA}$ $V_{CE}=2\text{V}$
D.C. Current Gain 2N5810, 1 2N5812, 3 2N5814, 5 2N5816, 7 2N5818, 9	HFE *	60 200 150 500 60 120 100 200 150 300		$I_C=2\text{mA}$ $V_{CE}=2\text{V}$
D.C. Current Gain 2N5810, 1 2N5812, 3 2N5814, 5 2N5816, 7 2N5818, 9	HFE *	45 60 20 25 25		$I_C=500\text{mA}$ $V_{CE}=2\text{V}$
Current Gain-Bandwidth Product 2N5810, 1, 4, 5 2N5816, 7 2N5812, 3, 8, 9	f_T	100 120 135	MHz MHz MHz	$I_C=50\text{mA}$ $V_{CE}=2\text{V}$
Collector-Base Capacitance	Cob	15	pF	$V_{CB}=10\text{V}$ $I_E=0$ $f=1\text{MHz}$
Emitter-Base Capacitance	Cib	55	pF	$V_{EB}=0.5\text{V}$ $I_C=0$ $f=1\text{MHz}$

* Pulse Test : Pulse Width=0.3ms, Duty Cycle=1%

 $V_{CE}(\text{sat})$ & V_{BE} vs I_C  f_T vs I_C 