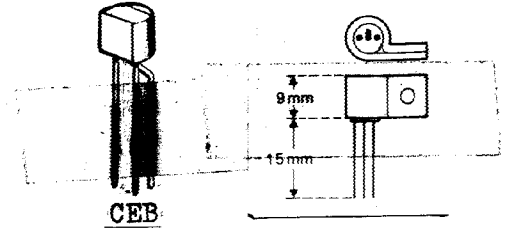


2N5810 THROUGH 2N5819

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.

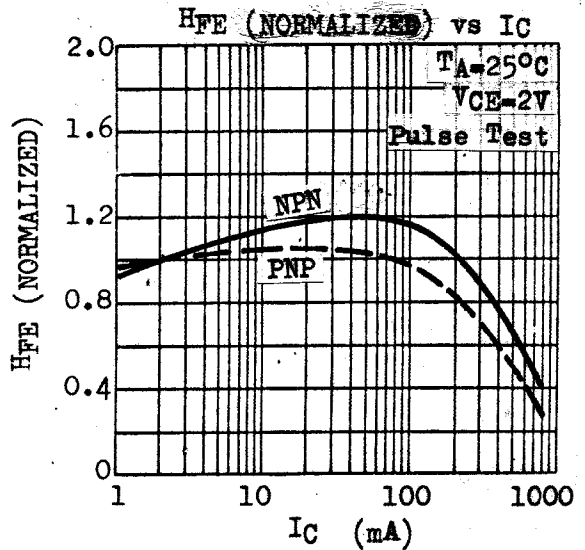
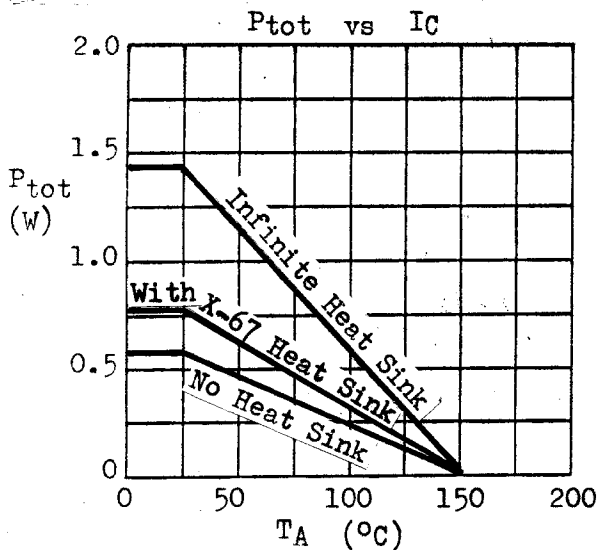
CASE TO-92F WITH X-67
LEAD PREFORMED HEAT SINK



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		UNIT	TEST CONDITIONS
		MIN	MAX		
Collector-Base Breakdown Voltage 2N5810, 1, 2, 3 2N5814, 5, 6, 7, 8, 9	BV _{CES}	35		V	$I_C=0.01\text{mA}$ $V_{BE}=0$
		50		V	
Collector-Emitter Breakdown Voltage 2N5810, 1, 2, 3 2N5814, 5, 6, 7, 8, 9	LV _{CEO} *	25		V	$I_C=10\text{mA}$ $I_B=0$
		40		V	
Collector Cutoff Current	I _{CBO}		100	nA	$V_{CB}=25\text{V}$ $I_E=0$ $T_A=100^\circ\text{C}$
			15	μA	
Emitter Cutoff Current	I _{EBO}		10	μA	$V_{EB}=5\text{V}$ $I_C=0$
Collector-Emitter Saturation Voltage	V _{CE(sat)} *		0.75	V	$I_C=500\text{mA}$ $I_B=50\text{mA}$
Base-Emitter Saturation Voltage	V _{BE(sat)} *		1.2	V	$I_C=500\text{mA}$ $I_B=50\text{mA}$
Base-Emitter Voltage	V _{BE} *	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	H _{FE} *		60	200	$I_C=2\text{mA}$ $V_{CE}=2\text{V}$
			150	500	
			60	120	
			100	200	
			150	300	
D.C. Current Gain 2N5810, 1 2N5812, 3 2N5814, 5 2N5816, 7 2N5818, 9	H _{FE} *		45		$I_C=500\text{mA}$ $V_{CE}=2\text{V}$
			60		
			20		
			25		
			25		
Current Gain-Bandwidth Product 2N5810, 1, 4, 5 2N5816, 7 2N5812, 3, 8, 9	f _T		100	MHz	$I_C=50\text{mA}$ $V_{CE}=2\text{V}$
			120	MHz	
			135	MHz	
Collector-Base Capacitance	C _{ob}		15	pF	$V_{CB}=10\text{V}$ $I_E=0$ $f=1\text{MHz}$
Emitter-Base Capacitance	C _{ib}		55	pF	$V_{EB}=0.5\text{V}$ $I_C=0$ $f=1\text{MHz}$

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

