

# 2N5447 THROUGH 2N5450

COMPLEMENTARY SILICON GENERAL PURPOSE AF TRANSISTORS

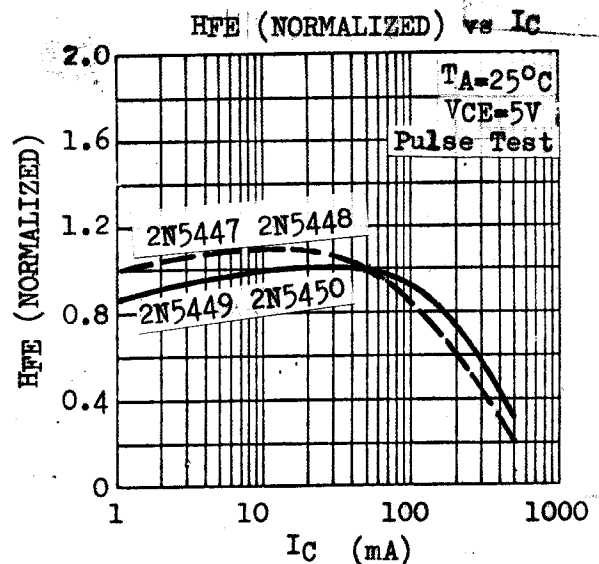
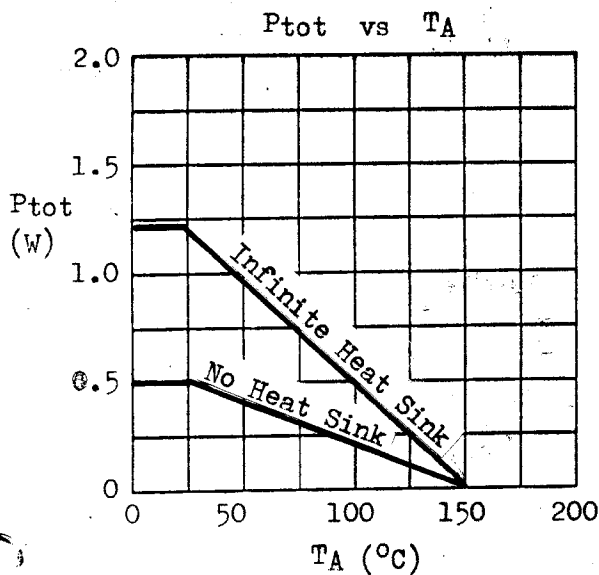
THE 2N5447, 2N5448, 2N5449, 2N5450 ARE SILICON PLANAR EPITAXIAL TRANSISTORS FOR GENERAL PURPOSE MEDIUM POWER AMPLIFIER APPLICATIONS. THE 2N5447, 2N5448 ARE PNP AND ARE COMPLEMENTARY TO THE NPN 2N5449, 2N5450 RESPECTIVELY.

CASE TO-92F



ABSOLUTE MAXIMUM RATINGS	For p-n-p devices, voltage and current values are negative.			
	2N5447 (PNP)	2N5448 (PNP)	2N5449 (NPN)	2N5450 (NPN)
Collector-Base Voltage	$V_{CB0}$	40V	50V	50V
Collector-Emitter Voltage	$V_{CE0}$	25V	30V	30V
Emitter-Base Voltage	$V_{EB0}$	5V	5V	5V
Collector Current	$I_C$	0.2A	0.2A	0.8A
Collector Peak Current ( $t \leq 10\text{ms}$ )	$I_{CM}$	0.6A	0.6A	
Total Power Dissipation ( $T_C \leq 25^\circ\text{C}$ )	$P_{tot}$		1.2W	
( $T_A \leq 25^\circ\text{C}$ )			500mW **	
Operating Junction & Storage Temperature	$T_j, T_{stg}$		-55 to $150^\circ\text{C}$	

\*\* 360mW in JEDEC registration.



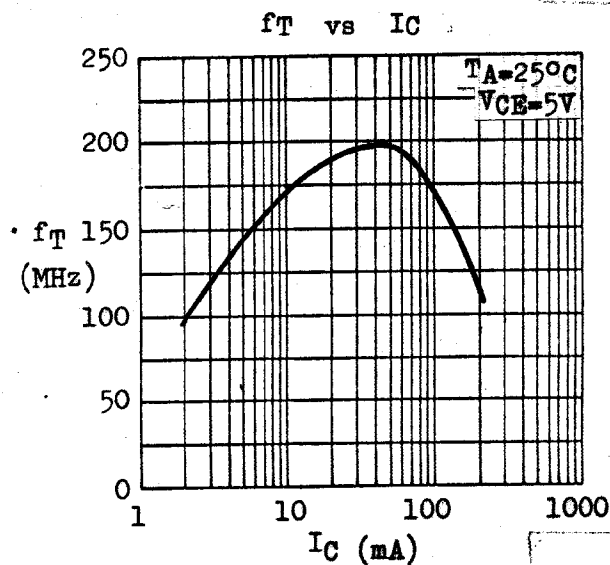
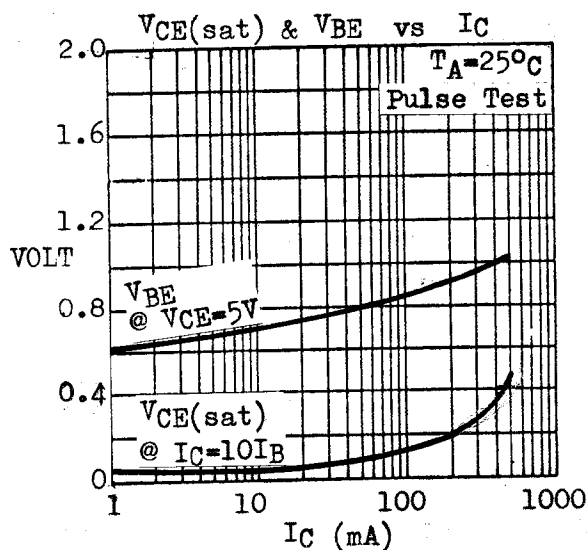
**MICRO ELECTRONICS LTD.**

38 HUNG TO ROAD, KWUN TONG, HONG KONG. TELEX 43310  
 KWUN TONG P. O. BOX 69477 CABLE ADDRESS "MICROTRON"  
 TELEPHONE: 3-430181-6 3-892363, 3-892423  
 FAX: 3-410321

ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage 2N5447 2N5448, 2N5449, 2N5450	BV <sub>CBO</sub>	40 50			V V	I <sub>C</sub> =0.1mA I <sub>E</sub> =0
Collector-Emitter Breakdown Voltage 2N5447 2N5448, 2N5449, 2N5450	LV <sub>CEO</sub> *	25 30			V V	I <sub>C</sub> =10mA I <sub>B</sub> =0
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	5			V	I <sub>E</sub> =0.1mA I <sub>C</sub> =0
Collector Cutoff Current	I <sub>CBO</sub>			100	nA	V <sub>CB</sub> =20V I <sub>E</sub> =0
Emitter Cutoff Current	I <sub>EBO</sub>			100	nA	V <sub>EB</sub> =3V I <sub>C</sub> =0
Collector-Emitter Saturation Voltage 2N5447, 2N5448 2N5449 2N5450	V <sub>CE(sat)</sub> *			0.25 0.6 0.8	V V V	I <sub>C</sub> =50mA I <sub>B</sub> =5mA I <sub>C</sub> =100mA I <sub>B</sub> =5mA I <sub>C</sub> =100mA I <sub>B</sub> =5mA
Base-Emitter Voltage 2N5447, 2N5448 2N5449, 2N5450	V <sub>BE</sub> *	0.6 0.5		1.0 1.0	V V	I <sub>C</sub> =50mA V <sub>CE</sub> =5V I <sub>C</sub> =100mA V <sub>CE</sub> =2V
D.C. Current Gain 2N5447 2N5448 2N5449 2N5450	h <sub>FE</sub> *	60 30 100 50		300 150 300 150		I <sub>C</sub> =50mA V <sub>CE</sub> =5V I <sub>C</sub> =50mA V <sub>CE</sub> =5V I <sub>C</sub> =50mA V <sub>CE</sub> =2V I <sub>C</sub> =50mA V <sub>CE</sub> =2V
Current Gain-Bandwidth Product 2N5447, 2N5448 2N5449, 2N5450	f <sub>T</sub>	100 100			MHz MHz	I <sub>C</sub> =50mA V <sub>CE</sub> =5V I <sub>C</sub> =50mA V <sub>CE</sub> =2V
Collector-Base Capacitance	C <sub>ob</sub>			12	pF	V <sub>CB</sub> =10V I <sub>E</sub> =0 f=1MHz

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





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