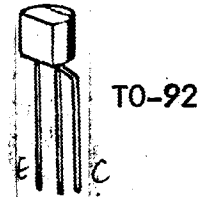


# MICRO ELECTRONICS

BC635 THRU' BC640

COMPLEMENTARY  
SILICON  
TRANSISTORS

BC635, BC637, BC639 (NPN) and BC636, BC638, BC640 (PNP) are complementary silicon epitaxial planar transistors for AF driver stages and amplifier applications up to 1A.



### ABSOLUTE MAXIMUM RATINGS

	BC635 BC636	BC637 BC638	BC639 BC640
Collector-Emitter Voltage	V <sub>CEO</sub> 45V	60V	80V
Collector Current-Continuous	I <sub>C</sub>	1A	
Collector Current	I <sub>C(max)</sub>	1.5A	
Total Power Dissipation @ T <sub>A</sub> ≤ 25°C T <sub>C</sub> ≤ 25°C	P <sub>tot</sub>	625mW 1.5W	
Operating Junction & Storage Temperature	T <sub>j</sub> , T <sub>stg</sub>	-55 to +150°C	

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

PARAMETER	SYMBOL	MIN	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage BC635, BC636 BC637, BC638 BC639, BC640	BV <sub>CB0</sub>	45 60 80		V	I <sub>C</sub> =1mA I <sub>E</sub> =0
Collector-Emitter Breakdown Voltage BC635, BC636 BC637, BC638 BC639, BC640	LV <sub>CEO</sub>	45 60 80		V	I <sub>C</sub> =20mA I <sub>B</sub> =0*
Emitter-Base Breakdown Voltage	BV <sub>EB0</sub>	5		V	I <sub>E</sub> =1μA I <sub>C</sub> =0
Collector Cutoff Current	I <sub>CB0</sub>		100 10	nA μA	V <sub>CB</sub> =30V I <sub>E</sub> =0 V <sub>CB</sub> =30V T <sub>A</sub> =125°C
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>		0.5	V	I <sub>C</sub> =500mA I <sub>B</sub> =50mA*
Base-Emitter Voltage	V <sub>BE</sub>		1.0	V	I <sub>C</sub> =500mA V <sub>CE</sub> =2V*
D.C. Current Gain	h <sub>FE</sub>	40 40 40	250 160 160		I <sub>C</sub> =150mA V <sub>CE</sub> =2V*
		25			I <sub>C</sub> =500mA V <sub>CE</sub> =2V*
Current Gain-Bandwidth Product	f <sub>T</sub>	50		MHz	I <sub>C</sub> =50mA V <sub>CE</sub> =5V f=20MHz

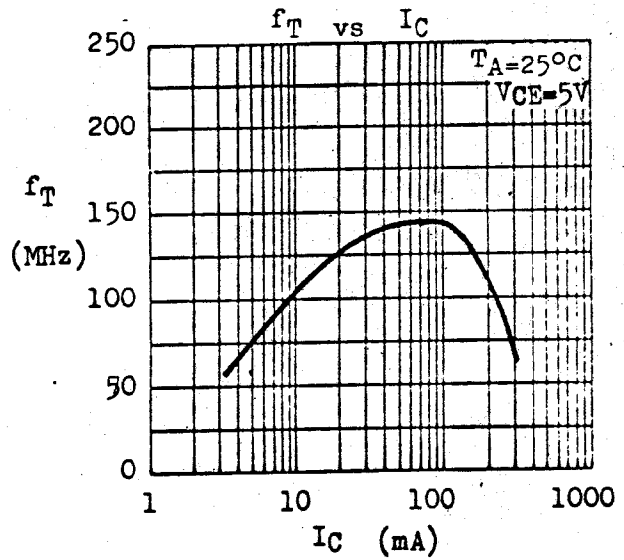
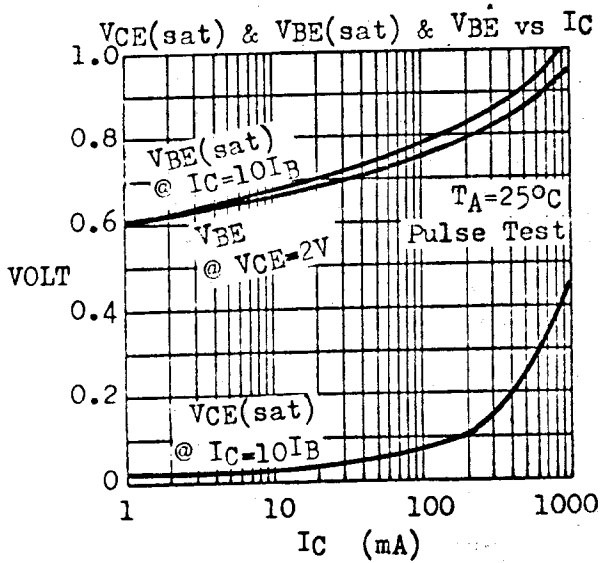
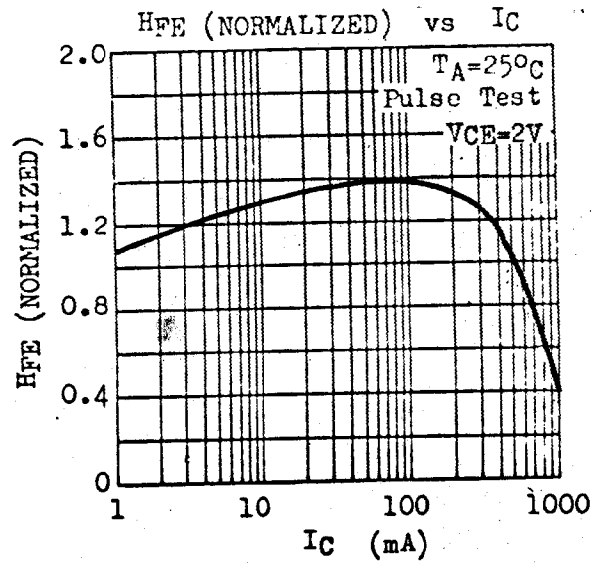
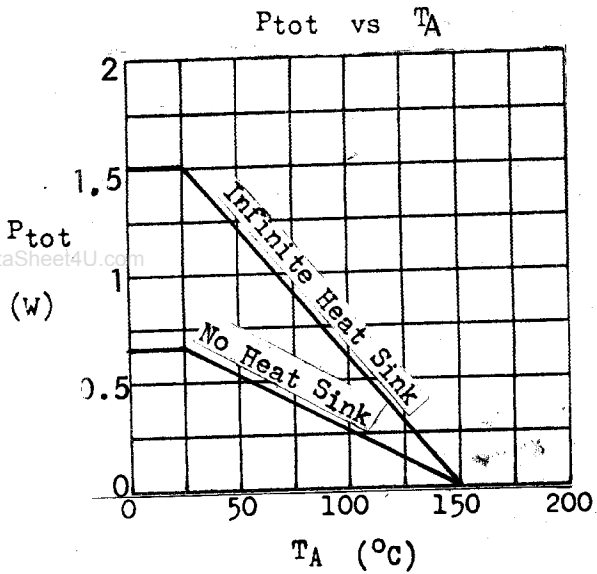
MICRO ELECTRONICS LTD. 美科有限公司 \*Pulse Test: Pulse Width=300μs, Duty Cycle=1%.

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**BC635 THRU' BC640**  
TYPICAL CHARACTERISTICS



\* HFE Grouping @ I<sub>C</sub>=150mA V<sub>CE</sub>=2V

Grouping -6	40-100
-10	63-160
-16	100-250