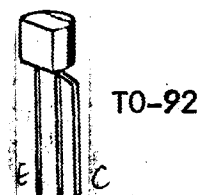


# MICRO ELECTRONICS

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

Collector-Emitter Voltage	$V_{CE0}$	BC635 BC636	45V	BC637 BC638	60V	BC639 BC640	80V
Collector Current-Continuous	$I_C$				1A		
Collector Current	$I_{C(max)}$				1.5A		
Total Power Dissipation @ $T_A \leq 25^\circ C$ $T_C \leq 25^\circ C$	$P_{tot}$				625mW 1.5W		
Operating Junction & Storage Temperature	$T_j, T_{stg}$				-55 to +150°C		

## ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ C$ unless otherwise specified)

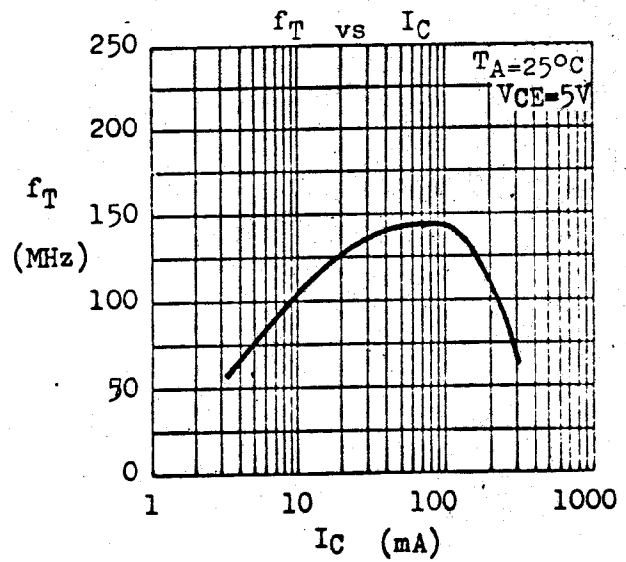
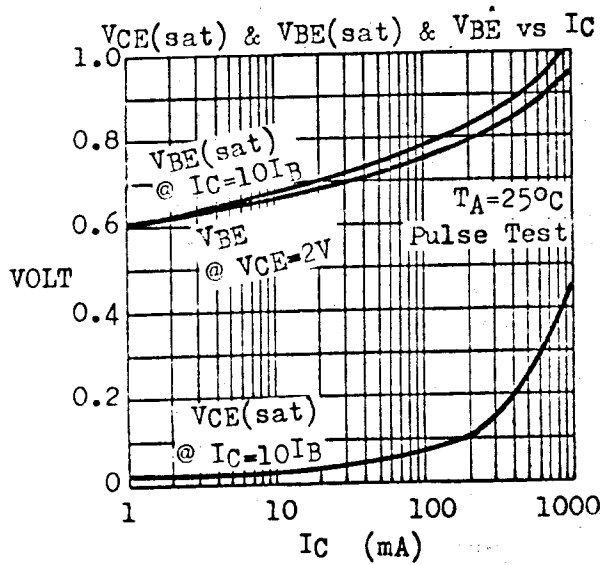
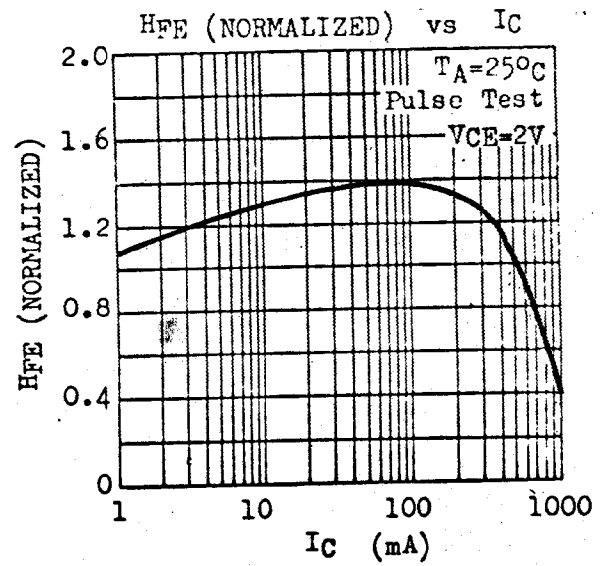
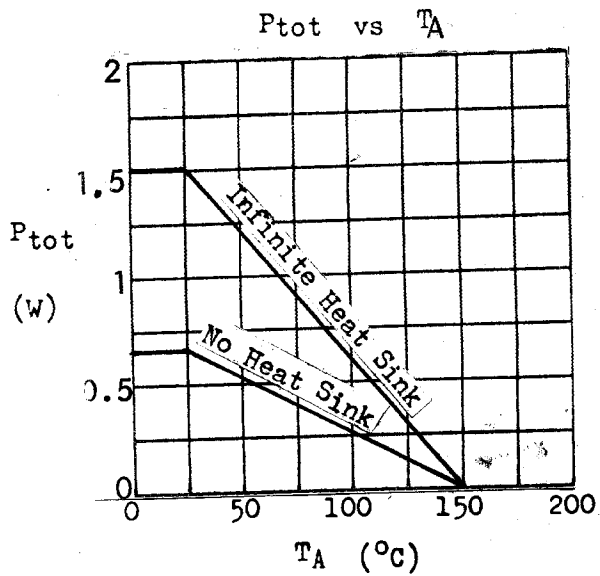
PARAMETER	SYMBOL	MIN	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage BC635, BC636 BC637, BC638 BC639, BC640	$BV_{CB0}$	45 60 80		V	$I_C=1mA$ $I_E=0$
Collector-Emitter Breakdown Voltage BC635, BC636 BC637, BC638 BC639, BC640	$LV_{CE0}$	45 60 80		V	$I_C=20mA$ $I_B=0^*$
Emitter-Base Breakdwon Voltage	$BV_{EB0}$	5		V	$I_E=1\mu A$ $I_C=0$
Collector Cutoff Current	$I_{CB0}$		100 10	nA $\mu A$	$V_{CB}=30V$ $I_E=0$ $V_{CB}=30V$ $T_A=125^\circ C$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		0.5	V	$I_C=500mA$ $I_B=50mA^*$
Base-Emitter Voltage	$V_{BE}$		1.0	V	$I_C=500mA$ $V_{CE}=2V^*$
D.C. Current Gain BC635, BC636 BC637, BC638 BC639, BC640	$H_{FE}$	40 40 40	250 160 160		$I_C=150mA$ $V_{CE}=2V^*$
All types		25			$I_C=500mA$ $V_{CE}=2V^*$
Current Gain-Bandwidth Product	$f_T$	50		MHz	$I_C=50mA$ $V_{CE}=5V$ $f=20MHz$

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

38 Hung To Road, Kwun Tong, Kowloon, Hong Kong. Cable: Microtron, Hong Kong. Telex: 43510 Micro HX.

P.O. Box 49477, Kwun Tong. Tel: 3-430181-6 3-893363, 3-892423, 3-898224 FAX: 3-410321

**BC635 THRU BC640**  
**TYPICAL CHARACTERISTICS**



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

Grouping -6 40-100

-10 63-160

-16 100-250