

BC 337 · BC 338

NPN SILICON AF MEDIUM POWER TRANSISTORS

THE BC337, BC338 ARE NPN SILICON PLANAR EPITAXIAL TRANSISTORS FOR USE IN AF DRIVER AND OUTPUT STAGES, AS WELL AS FOR UNIVERSAL APPLICATIONS. THE BC337, BC338 ARE COMPLEMENTARY TO THE PNP TYPE BC327, BC328 RESPECTIVELY.

CASE TO-92F



ABSOLUTE MAXIMUM RATINGS

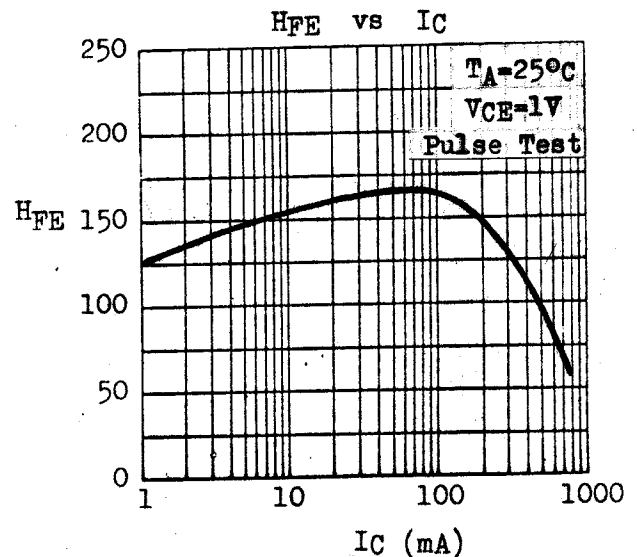
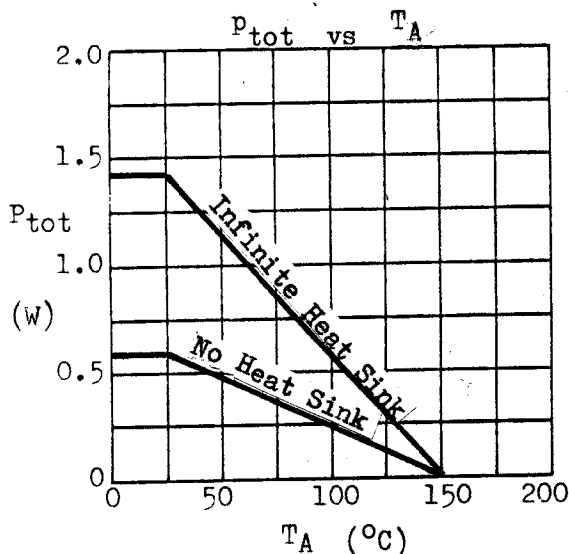
Collector-Emitter Voltage ($V_{BE}=0$)
 Collector-Emitter Voltage ($I_B=0$)
 Emitter-Base Voltage
 Collector Current
 Collector Peak Current ($t \leq 10\text{ms}$)
 Total Power Dissipation (@ $T_C \leq 25^\circ\text{C}$)
 (@ $T_A \leq 25^\circ\text{C}$)
 Operating Junction & Storage Temperature

	BC337	BC338
V_{CES}	50V	30V
V_{CEO}	45V	25V
V_{EBO}		5V
I_C	0.8A	
I_{CM}	1.5A	
P_{tot}	1.4W	625mW
T_j, T_{stg}	-55 to 150°C	

THERMAL RESISTANCE

Junction to Case
 Junction to Ambient

θ_{jc}	90°C/W	max.
θ_{ja}	200°C/W	max.



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

FAX: 3-410321

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

PARAMETER	SYMBOL	BC337			BC338			UNIT	TEST CONDITIONS	
		MIN	TYP	MAX	MIN	TYP	MAX			
Collector-Emitter Breakdown Voltage	BV_{CES}	50			30			V	$I_C=0.1\text{mA}$ $V_{BE}=0$	
Collector-Emitter Breakdown Voltage	$LV_{CEO} *$	45			25			V	$I_C=10\text{mA}$ $I_B=0$	
Emitter-Base Breakdown Voltage	BV_{EBO}	5			5			V	$I_E=0.1\text{mA}$ $I_C=0$	
Collector Cutoff Current	$ICES$			100			100	nA	$V_{CES}=45\text{V}$	
								nA	$V_{CES}=25\text{V}$	
				10					μA	$V_{CES}=45\text{V}$ $T_A=125^\circ\text{C}$
							10		μA	$V_{CES}=25\text{V}$ $T_A=125^\circ\text{C}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)} *$		0.7		0.7			V	$I_C=500\text{mA}$ $I_B=50\text{mA}$	
Base-Emitter Voltage	$V_{BE} *$		1.2		1.2			V	$I_C=300\text{mA}$ $V_{CE}=1\text{V}$	
D.C. Current Gain	$H_{FE} *$		100	630	100	630			$I_C=100\text{mA}$ $V_{CE}=1\text{V}$	
		Group 16 (A)	100	250	100	250				
		Group 25 (B)	160	400	160	400				
		Group 40 (C)	250	630	250	630				
		All Groups	40		40					$I_C=300\text{mA}$ $V_{CE}=1\text{V}$
H_{FE} Matched Pair Ratio	$\frac{H_{FE} 1}{H_{FE} 2} *$		1.41		1.41				$I_C=100\text{mA}$ $V_{CE}=1\text{V}$	
Current Gain-Bandwidth Product	f_T		100		100			MHz	$I_C=10\text{mA}$ $V_{CE}=5\text{V}$	
Collector-Base Capacitance	C_{ob}		10		10			pF	$V_{CB}=10\text{V}$ $I_E=0$ $f=1\text{MHz}$	

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

