

# BC 327 · BC 328

PNP SILICON AF MEDIUM POWER TRANSISTORS

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

CASE TO-92F

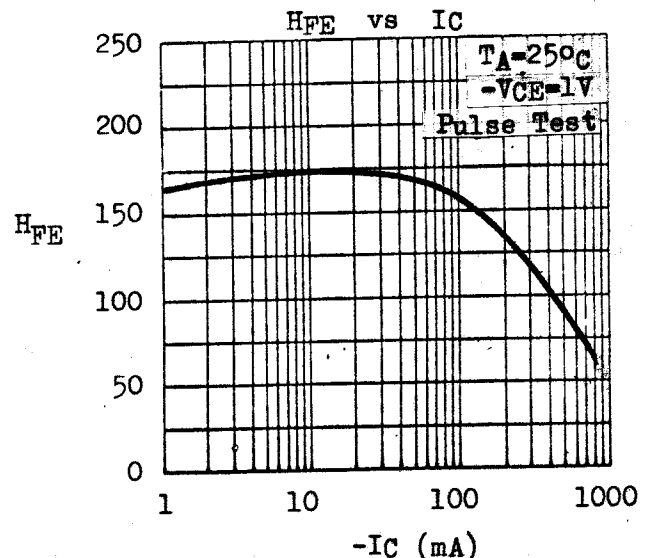
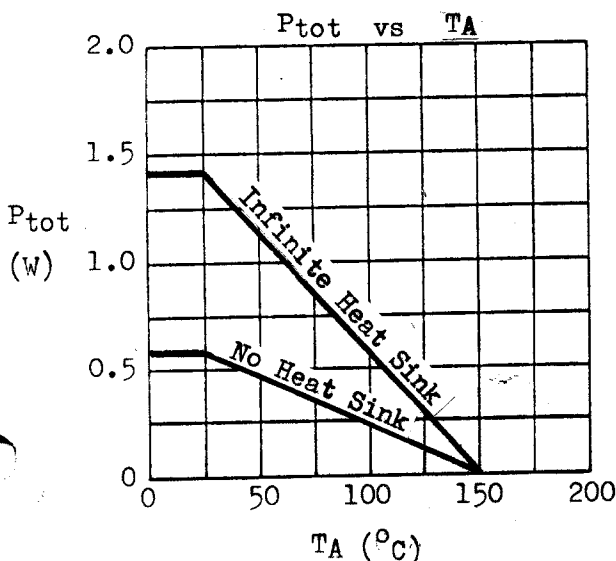


## ABSOLUTE MAXIMUM RATINGS

		BC327	BC328
Collector-Emitter Voltage ( $V_{BE}=0$ )	- $V_{CES}$	50V	30V
Collector-Emitter Voltage ( $I_B=0$ )	- $V_{CEO}$	45V	25V
Emitter-Base Voltage	- $V_{EBO}$	5V	
Collector Current	- $I_C$	0.8A	
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	
(@ $T_A \leq 25^\circ\text{C}$ )		625mW	
Operating Junction & Storage Temperature	$T_j, T_{stg}$	-55 to $150^\circ\text{C}$	

## THERMAL RESISTANCE

Junction to Case	$\theta_{jc}$	$90^\circ\text{C/W}$	max.
Junction to Ambient	$\theta_{ja}$	$200^\circ\text{C/W}$	max.



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

PARAMETER	SYMBOL	BC327		BC328		UNIT	TEST CONDITIONS	
		MIN	TYP	MAX	MIN			TYP
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	$-I_{CES}$			100		nA	$-V_{CES}=45\text{V}$	
					100	nA	$-V_{CES}=25\text{V}$	
				10		10	$\mu\text{A}$	$-V_{CES}=45\text{V}$ $T_A=125^\circ\text{C}$ $-V_{CES}=25\text{V}$ $T_A=125^\circ\text{C}$
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	100	250	100	250		
		Group 25	160	400	160	400		
		Group 40	250	630	250	630		
		All Groups	40		40			$-I_C=300\text{mA}$ $-V_{CE}=1\text{V}$
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	$C_{ob}$		14		14	pF	$-V_{CB}=10\text{V}$ $I_E=0$ $f=1\text{MHz}$	

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

