

BC727 · BC728

PNP SILICON AF MEDIUM POWER TRANSISTORS

THE BC727, BC728 ARE PNP SILICON PLANAR EPITAXIAL TRANSISTORS FOR USE IN AF DRIVER AND OUTPUT STAGES, AS WELL AS FOR UNIVERSAL APPLICATIONS. THE BC727, BC728 ARE COMPLEMENTARY TO THE NPN TYPE BC737, BC738 RESPECTIVELY.

CASE TO-92A

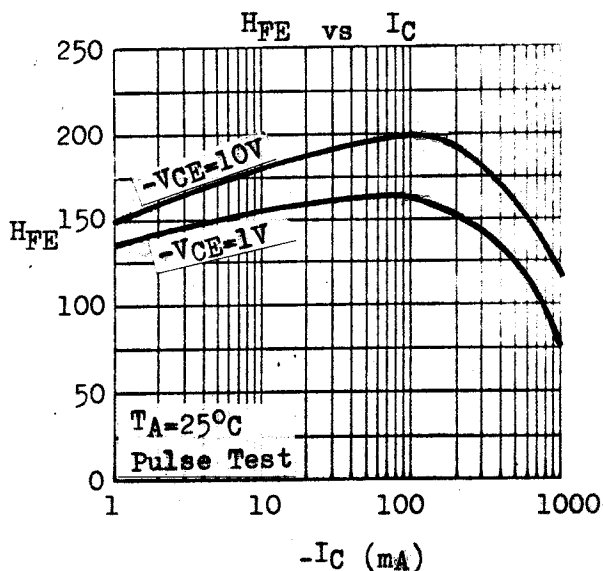
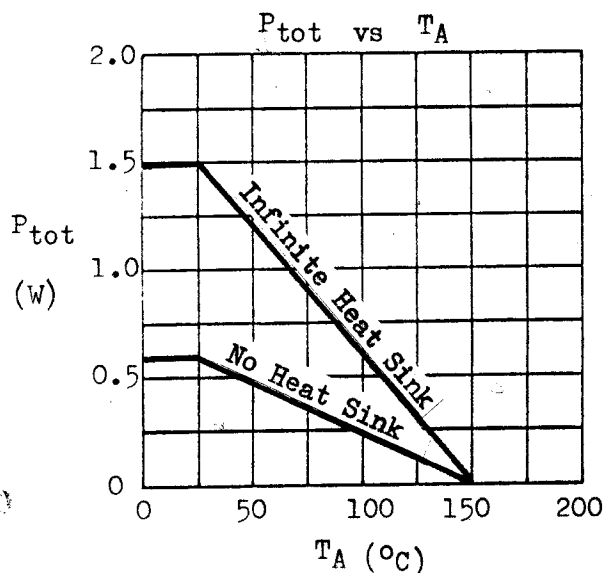


ABSOLUTE MAXIMUM RATINGS

	BC727	BC728
Collector-Base Voltage	-V _{CB0} 50V	30V
Collector-Emitter Voltage	-V _{CEO} 40V	25V
Emitter-Base Voltage	-V _{EB0}	5V
Collector Current	-I _C	1.5A
Collector Peak Current (t ≤ 10ms)	-I _{CM}	2.5A
Total Power Dissipation (@ T _C ≤ 25°C)	P _{tot}	1.5W
(@ T _A ≤ 25°C)		625mW
Operating Junction & Storage Temperature	T _j , T _{stg}	-55 to 150°C

THERMAL RESISTANCE

Junction to Case	θ _{jc}	83°C/W max.
Junction to Ambient	θ _{ja}	200°C/W max.



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

PARAMETER	SYMBOL	BC727		BC728		UNIT	TEST CONDITIONS
		MIN	TYP MAX	MIN	TYP MAX		
Collector-Base Breakdown Voltage	$-BV_{CBO}$	50		30		V	$-I_C=0.1\text{mA}$ $I_E=0$
Collector-Emitter Breakdown Voltage	$-LV_{CEO}^*$	40		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	$-I_{CBO}$		100		100	nA	$-V_{CB}=40\text{V}$ $I_E=0$
Emitter Cutoff Current	$-I_{EBO}$		100		100	nA	$-V_{EB}=4\text{V}$ $I_C=0$
Collector-Emitter Saturation Voltage	$-V_{CE}(\text{sat})^*$		0.7		0.7	V	$-I_C=500\text{mA}$ $-I_B=50\text{mA}$
Base-Emitter Saturation Voltage	$-V_{BE}(\text{sat})^*$		1.2 1.3		1.2 1.3	V	$-I_C=500\text{mA}$ $-I_B=50\text{mA}$ $-I_C=1\text{A}$ $-I_B=0.1\text{A}$
D.C. Current Gain	H_{FE}^*	63	630	63	630		$-I_C=100\text{mA}$ $-V_{CE}=1\text{V}$
Group 10		63	160	63	160		
Group 16		100	250	100	250		
Group 25		160	400	160	400		
Group 40		250	630	250	630		
All Groups	H_{FE}^*	63		63			$-I_C=500\text{mA}$ $-V_{CE}=1\text{V}$
		15		30			$-I_C=1\text{A}$ $-V_{CE}=1\text{V}$
Current Gain-Bandwidth Product	f_T	40	120	40	120	MHz	$-I_C=50\text{mA}$ $-V_{CE}=10\text{V}$
Collector-Base Capacitance	C_{ob}		17 20		17 20	pF	$-V_{CB}=10\text{V}$ $I_E=0$ $f=1\text{MHz}$

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

