

# BC 527 · BC 528

PNP SILICON AF MEDIUM POWER TRANSISTORS

THE BC527, BC528 ARE PNP SILICON PLANAR EPITAXIAL TRANSISTORS FOR USE IN AF DRIVER AND OUTPUT STAGES, AS WELL AS FOR UNIVERSAL APPLICATIONS. THE BC527, BC528 ARE COMPLEMENTARY TO THE NPN TYPE BC537, BC538 RESPECTIVELY.

CASE TO-92A

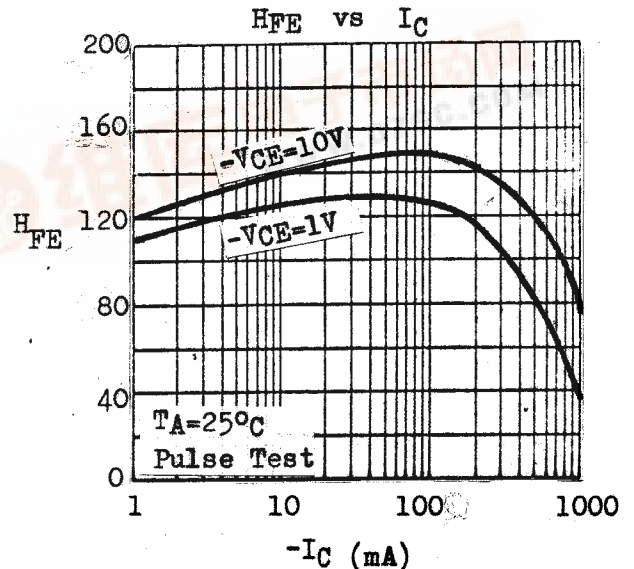
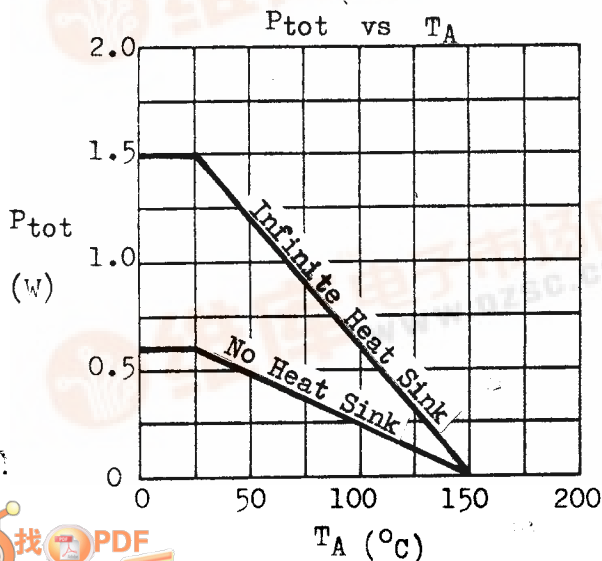


### ABSOLUTE MAXIMUM RATINGS

	BC527	BC528
Collector-Base Voltage	-V <sub>CBO</sub> 60V	80V
Collector-Emitter Voltage	-V <sub>CEO</sub> 60V	80V
Emitter-Base Voltage	-V <sub>EBO</sub>	6V
Collector Current	-I <sub>C</sub>	1A
Collector Peak Current (t ≤ 10ms)	-I <sub>CM</sub>	1.5A
Total Power Dissipation (@ T <sub>C</sub> ≤ 25°C)	P <sub>tot</sub>	1.5W
(@ T <sub>A</sub> ≤ 25°C)		625mW
Operating Junction & Storage Temperature	T <sub>j</sub> , T <sub>stg</sub>	-55 to 150°C

### THERMAL RESISTANCE

Junction to Case	θ <sub>jc</sub>	83°C/W max.
Junction to Ambient	θ <sub>ja</sub>	200°C/W max.



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

PARAMETER	SYMBOL	BC527		BC528		UNIT	TEST CONDITIONS	
		MIN	MAX	MIN	MAX			
Collector-Base Breakdown Voltage	- $BV_{CB0}$	60		80		V	$-I_C=0.1\text{mA}$ $I_E=0$	
Collector-Emitter Breakdown Voltage	- $LV_{CEO}^*$	60		80		V	$-I_C=10\text{mA}$ $I_B=0$	
Emitter-Base Breakdown Voltage	- $BV_{EBO}$	6		6		V	$-I_E=0.01\text{mA}$ $I_C=0$	
Collector Cutoff Current	- $I_{CBO}$		100			nA	$-V_{CB}=40\text{V}$ $I_E=0$	
					100	nA	$-V_{CB}=60\text{V}$ $I_E=0$	
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	$-I_C=500\text{mA}$ $-I_B=50\text{mA}$	
			1.2		1.5	V	$-I_C=1\text{A}$ $-I_B=0.1\text{A}$	
Base-Emitter Saturation Voltage	- $V_{BE}(\text{sat})^*$		1.3		1.3	V	$-I_C=150\text{mA}$ $-I_B=15\text{mA}$	
D.C. Current Gain	HFE *	40	400	40	400		$-I_C=100\text{mA}$ $-V_{CE}=1\text{V}$	
		Group 6	40	100	40	100		
		Group 10	63	160	63	160		
		Group 16	100	250	100	250		
		Group 25	160	400	160	400		
	All Groups	HFE *	50		50		$-I_C=10\text{mA}$ $-V_{CE}=10\text{V}$	
		50		50		$-I_C=150\text{mA}$ $-V_{CE}=10\text{V}$		
		50		50		$-I_C=500\text{mA}$ $-V_{CE}=10\text{V}$		
		15		15		$-I_C=1\text{A}$ $-V_{CE}=10\text{V}$		
Current Gain-Bandwidth Product	$f_T$	100		100		MHz	$-I_C=50\text{mA}$ $-V_{CE}=10\text{V}$	
Collector-Base Capacitance	$C_{ob}$		15		15	pF	$-V_{CB}=10\text{V}$ $I_E=0$ $f=1\text{MHz}$	

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

