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January 2010

D45C8 PNP Power Amplifier

• Sourced from process 5P.



Absolute Maximum Ratings $T_A = 25$ °C unless otherwise noted

Symbol	Parameter	Value	Units
V _{CEO}	Collector-Emitter Voltage	-60	V
I _C	Collector Current - Continuous	-4.0	Α
T _J , T _{STG}	Operating and Storage Junction Temperature Range	-55 to +150	°C

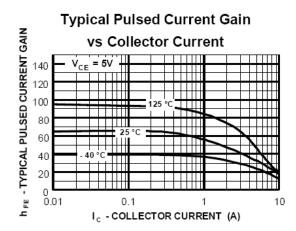
Electrical Characteristics T_A =25°C unless otherwise noted

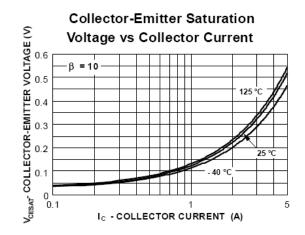
Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
Off Characte	eristics					
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	$I_C = -100 \text{mA}, I_B = 0$	-60			V
I _{CES}	Collector-Emitter-(Base)Short	$V_{CE} = -70V, I_{E} = 0$			-10	μΑ
I _{CEO}	Collector-Emitter-(Base)Open	$V_{CE} = -55V, I_{E} = 0$			-100	μΑ
I _{EBO}	Emitter-Base Current	$V_{EB} = -5.0V, I_{B} = 0$			-100	μΑ
On Characte	ristics			•		•
h _{FE}	DC Current Gain	V _{CE} = -1.0V, I _C = -0.2A V _{CE} = -1.0V, I _C = -2.0A	40 20		120	
V _{CE (sat)}	Collector-Emitter Saturation Voltage	$I_C = -1.0A$, $I_B = -50mA$			-0.5	V
V _{BE (sat)}	Base-Emitter Saturation Voltage	$I_C = -1.0A$, $I_B = -100mA$			-1.3	V
Small Signa	Characteristics					
C _{ob}	Output Capacitance	$V_{CB} = -10V, f = 1.0MHz$			125	pF
f _T	Current Gain Bandwidth Product	$I_C = -20$ mA, $V_{CE} = -4.0$ V	32			MHz
t _{ON}	t _d , Delay Time t _r , Rise Time	$I_C = -1.0A$, $I_{B1} = I_{B2} = -0.1A$		59 502		ns
t _{OFF}	t _s , Storage Time t _f , Fall Time	$V_{CC} = -30V$, tp = 25 μ s		474 59		ns

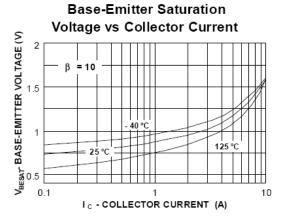
Thermal Characteristics T_A=25°C unless otherwise noted

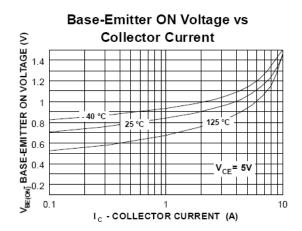
Symbol	Parameter	Max.	Units	
P _D	Total Device Dissipation Derate above 25°C	60 480	W mW/°C	
$R_{\theta JC}$	Thermal Resistance, Junction to Case	2.1	°C/W	
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	62.5	°C/W	

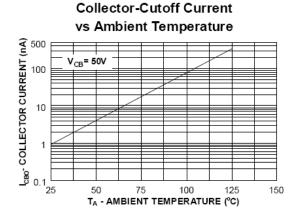
Typical Performance Characteristics















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Definition of Terms

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