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Silicon PNP Power Transistors

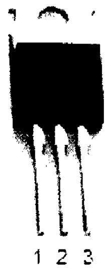
D45C8

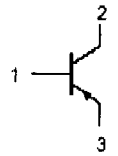
DESCRIPTION

- Low Saturation Voltage
- Good Linearity of h_{FE}
- Fast Switching Speeds
- Complement to Type D44C8

APPLICATIONS

- Designed for various specific and general purpose application such as: output and driver stages of amplifiers operating at frequencies from DC to greater than 1.0MHz series, shunt and switching regulators; low and high frequency inverters/ converters and many others.





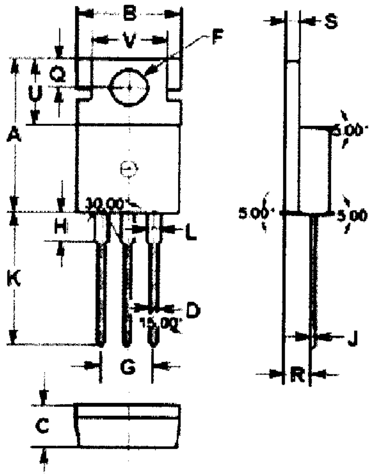
PIN 1. BASE
2.COLLECTOR
3. EMITTER
TO-220C package

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector-Emitter Voltage	-70	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-4	A
I_{CM}	Collector Current-Peak	-6	A
I_B	Base Current-Continuous	-1	A
P_C	Collector Power Dissipation @T_C=25℃	30	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	4.2	℃/W



DIM	mm	
	MIN	MAX
A	15.70	15.90
B	9.90	10.10
C	4.20	4.40
D	0.70	0.90
F	3.40	3.60
G	4.98	5.18
H	2.70	2.90
J	0.44	0.46
K	13.20	13.40
L	1.10	1.30
Q	2.70	2.90
R	2.50	2.70
S	1.29	1.31
U	6.45	6.65
V	8.66	8.86

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -1A ;I_B= -50mA			-0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= -1A ;I_B= -100mA			-1.3	V
I_{CES}	Collector Cutoff Current	V_{CE}= -70V,			-10	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0			-100	μA
h_{FE-1}	DC Current Gain	I_C= -0.2A ; V_{CE}= -1V	40		120	
h_{FE-2}	DC Current Gain	I_C= -1A ; V_{CE}= -1V	20			
f_T	Current-Gain—Bandwidth Product	I_C= -20mA;V_{CE}= -4V;f_{test}= 1MHz		40		MHz

Switching Times

t_r	Rise Time	I_C= -1A; I_{B1}= -I_{B2}= -0.1A; V_{CC}= -20V			0.2	μs
t_s	Storage Time				0.6	μs
t_f	Fall Time				0.3	μs