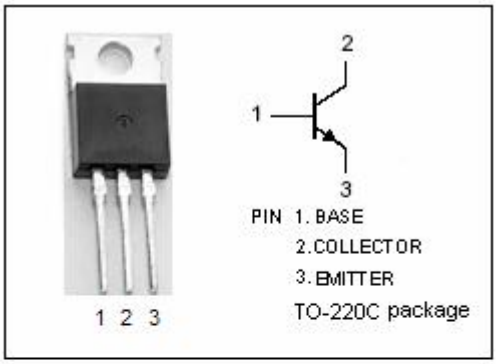
isc Silicon PNP Power Transistors D45C5

DESCRIPTION

- Low Saturation Voltage
- Good Linearity of h_{FE}
- Fast Switching Speeds
- Complement to Type D44C5
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

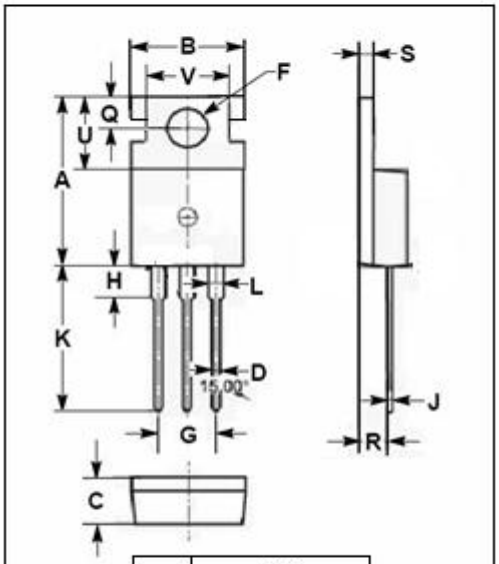
- Designed for various specific and general purpose application such as: output and driver stages of amplifiers operating at frequencies from DC to greater than 1.0MHz series, shunt and switching regulators; low and high frequency inverters/ converters and many others.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector-Emitter Voltage	-55	V
V_{CEO}	Collector-Emitter Voltage	-45	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	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

isc Silicon PNP Power Transistors D45C5

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}= -55V, V_{BE}= 0			-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

NOTICE：

ISC reserves the rights to make changes of the content herein the datasheet at any time without notification. The information contained herein is presented only as a guide for the applications of our products.

ISC products are intended for usage in general electronic equipment. The products are not designed for use in equipment which require specialized quality and/or reliability, or in equipment which could have applications in hazardous environments, aerospace industry, or medical field. Please contact us if you intend our products to be used in these special applications.

ISC makes no warranty or guarantee regarding the suitability of its products for any particular purpose, nor does ISC assume any liability arising from the application or use of any products, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages.