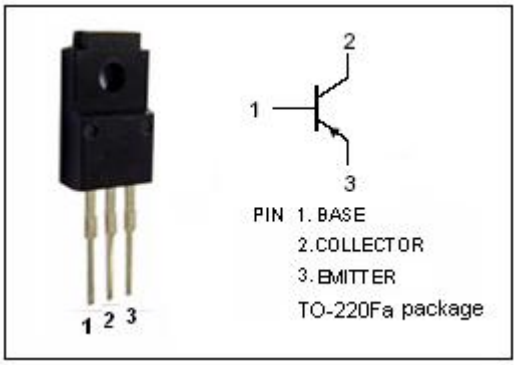
isc Silicon PNP Power Transistor 2SA1443



DESCRIPTION

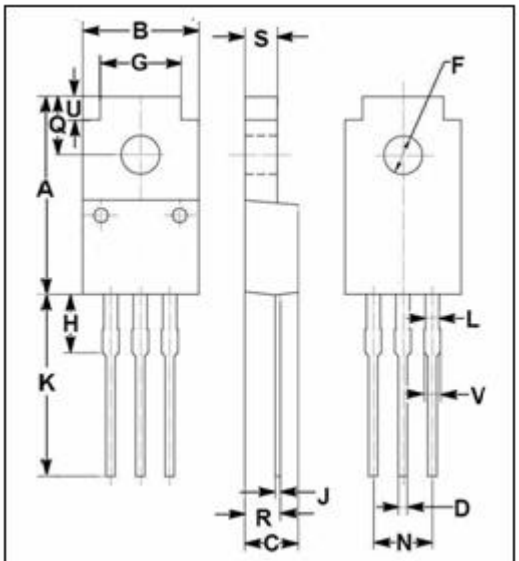
- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= -60V(Min)
- High DC Current Gain-
  : h_{FE}= 100(Min)@ (V_{CE}= -2V , I_C= -2A)
- Low Saturation Voltage-
  : $V_{CE(sat)}$= −0.3V(Max)@ (I_C= -6A, I_B= -0.3A)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- This type of power transistor is developed for high-speed switching and features a high h_{FE} at low $V_{CE(sat)}$,which is ideal for use as a driver in DC/DC converters and actuators

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-7.0	V
I_C	Collector Current-Continuous	-10	A
I_{CM}	Collector Current-Pulse	-20	A
I_B	Base Current-Continuous	-5	A
P_T	Total Power Dissipation @T_C=25℃	30	W
	Total Power Dissipation @T_a=25℃	2.0	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃



DIM	mm MIN	mm MAX
A	16.85	17.15
B	9.54	10.10
C	4.35	4.65
D	0.75	0.90
F	3.20	3.40
G	6.90	7.20
H	3.80	4.20
J	0.45	0.75
K	13.35	13.80
L	1.10	1.30
N	4.98	5.18
Q	4.85	5.15
R	2.55	3.25
S	2.70	2.90
U	1.75	2.05
V	1.30	1.50

isc Silicon PNP Power Transistor 2SA1443

ELECTRICAL CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= -6.0A ; I_B= -0.6A, L= 1mH	-60			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= -6A; I_B= -0.3A			-0.3	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= -8A; I_B= -0.4A			-0.5	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	I_C= -6A; I_B= -0.3A			-1.2	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	I_C= -8A; I_B= -0.4A			-1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -60V ; I_E=0			-10	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0			-10	μA
h_{FE-1}	DC Current Gain	I_C= -1A; V_{CE}= -2V	100			
h_{FE-2}	DC Current Gain	I_C= -2A; V_{CE}= -2V	100		400	
h_{FE-3}	DC Current Gain	I_C= -6A; V_{CE}= -2V	60			

◆ **h_{FE-2} Classifications**

M	L	K
100-200	150-300	200-400

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.