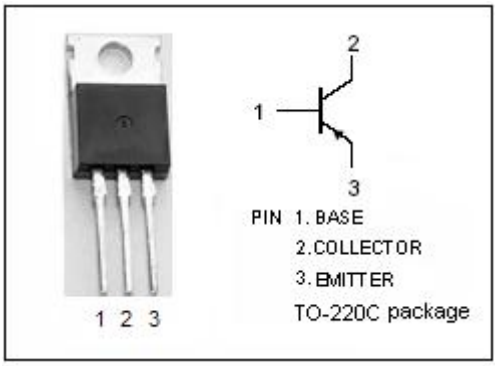
isc Silicon PNP Power Transistor — 2SA1645

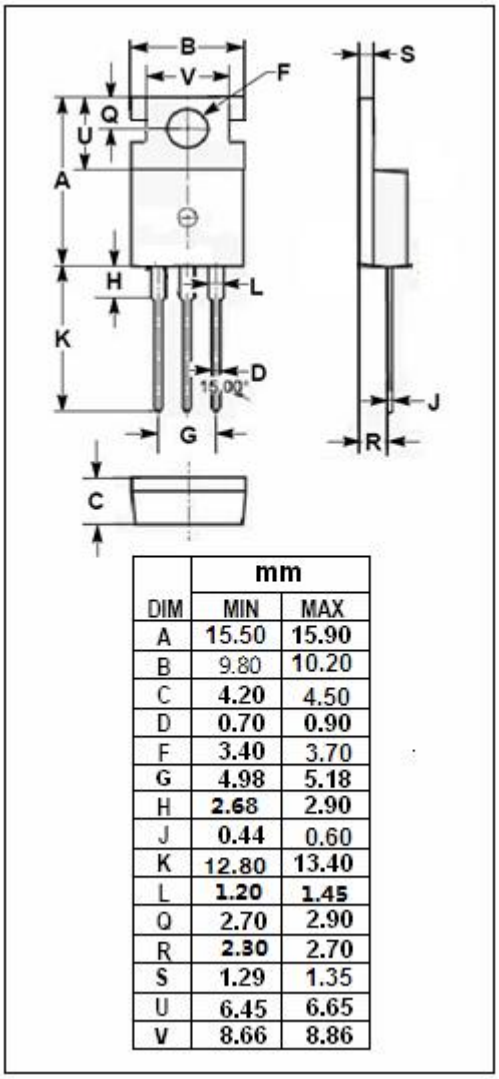
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= -100V(Min)
- High DC Current Gain-
  : h_{FE}= 100(Min)@ (V_{CE}= -2V , I_C= -1A)
- Low Saturation Voltage-
  : $V_{CE(sat)}$= −0.3V(Max)@ (I_C= -4A, I_B= -0.2A)
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Developed for use in switching power supplies, DC/DC converters, motor drivers, solenoid drivers, and other low-voltage power supply devices, as well as for high-current switching.



DIM	mm MIN	mm 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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-150	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-7.0	V
I_C	Collector Current-Continuous	-7.0	A
I_{CM}	Collector Current-Peak	-14	A
I_B	Base Current-Continuous	-3.5	A
P_C	Collector Power Dissipation @ T_a=25℃	1.5	W
	Collector Power Dissipation @ T_C=25℃	35	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN		MAX	UNIT
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= -4A; I_B= -0.2A			-0.3	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= -6A; I_B= -0.3A			-0.5	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	I_C= -4A; I_B= -0.2A			-1.2	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	I_C= -6A; I_B= -0.3A			-1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -100V; 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= -0.5A; V_{CE}= -2V	100			
h_{FE-2}	DC Current Gain	I_C= -1.5A; V_{CE}= -2V	100		400	
h_{FE-3}	DC Current Gain	I_C= -4A; V_{CE}= -2V	60			

◆ **h_{FE-2} Classifications**

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