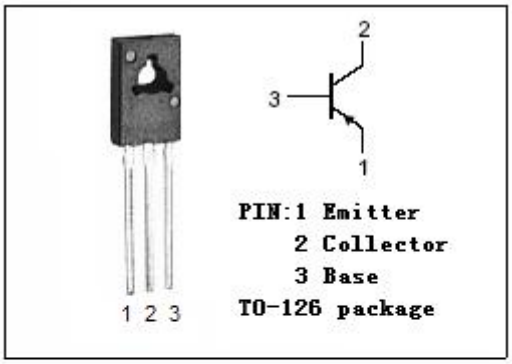
isc Silicon PNP Power Transistor 2SB1165

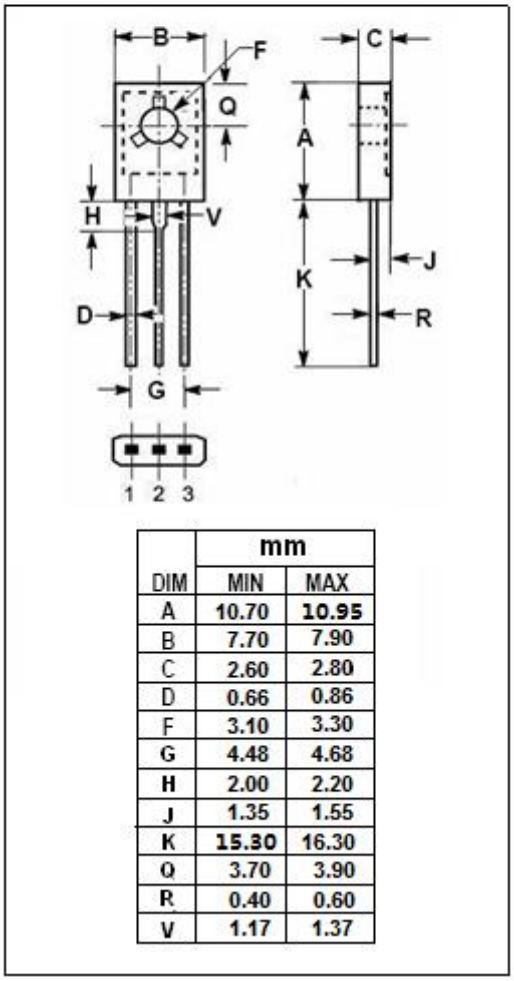
DESCRIPTION

- Low Collector Saturation Voltage-
  : $V_{CE(sat)}$= -0.55V(Max)@I_C= -3A
- High f_T
- Good Linearity of h_{FE}
- Fast switching time
- Complement to Type 2SD1722
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed for relay drivers,high-speed inverters and converters applications.



DIM	mm MIN	MAX
A	10.70	10.95
B	7.70	7.90
C	2.60	2.80
D	0.66	0.86
F	3.10	3.30
G	4.48	4.68
H	2.00	2.20
J	1.35	1.55
K	15.30	16.30
Q	3.70	3.90
R	0.40	0.60
V	1.17	1.37

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-5	A
I_{CP}	Collector Current-Pulse	-8	A
P_C	Collector Power Dissipation @ T_C=25℃	20	W
	Collector Power Dissipation @ T_a=25℃	1.2	
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	TYP.	MAX	UNIT
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 0.1mA; I_C= 0	6			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= -1mA, R_{BE}= ∞	-50			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C=-0.1mA; I_E=0	-60			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -3A; I_B= -0.15A			-0.55	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= -3A; I_B= -0.15A			-1.3	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -40V; I_E= 0			-1.0	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -4V; I_C= 0			-1.0	μA
h_{FE-1}	DC Current Gain	I_C= -0.5A ; V_{CE}= -2V	70		400	
h_{FE-2}	DC Current Gain	I_C= -4A ; V_{CE}= -2V	35			
f_T	Current-Gain—Bandwidth Product	I_C= -1A ; V_{CE}= -5V		130		MHz
C_{OB}	Output Capacitance	I_E=0; V_{CB}= -10V, f_{test}= 1MHz		60		pF

◆ **h_{FE-1}Classifications**

Q	R	S	T
70-140	100-200	140-280	200-400

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