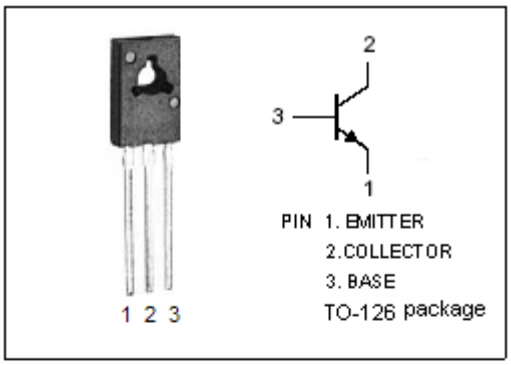
isc Silicon NPN Power Transistor 2N3440

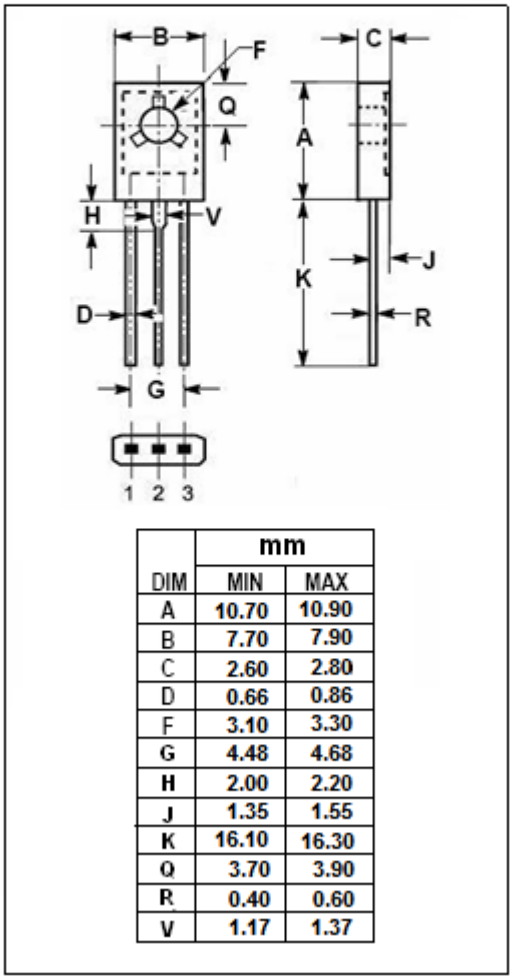
DESCRIPTION

- Silicon Epitaxial Planar NPN transistor
- Low Saturation Voltage -
  : $V_{CE(sat)}$= 0.5V(Max)@ I_C= 50mA, I_B= 4mA
- Good Linearity of h_{FE}



APPLICATIONS

• Designed for use in consumer and industrial line-operated applications. particularly suited as drivers in high-voltage low current inverters, switching and series regulators.



DIM	mm MIN	MAX
A	10.70	10.90
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	16.10	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	300	V
V_{CEO}	Collector-Emitter Voltage	250	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	3.0	A
I_B	Base Current	0.5	A
P_C	Collector Power Dissipation @ T_a<50℃	1.0	W
	Collector Power Dissipation @ T_C=25℃	10	
T_J	Junction Temperature	200	℃
T_{stg}	Storage Temperature Range	-60~200	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(sus)}$	Collector-Emitter Sustaining Voltage	I_C = 50 mA	**250**			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 50mA; I_B= 4mA			0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 50mA; I_B= 4mA			1.3	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 250V; I_E= 0			20	μA
I_{CEO}	Collector Cutoff Current	V_{CE}= 200V; I_B= 0			50	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C= 0			20	μA
h_{FE}	DC Current Gain	I_C= 20mA ; V_{CE}= 10V	40		160	
f_T	Current-Gain—Bandwidth Product	I_C= 5mA ; V_{CE}= 10V	15			MHz