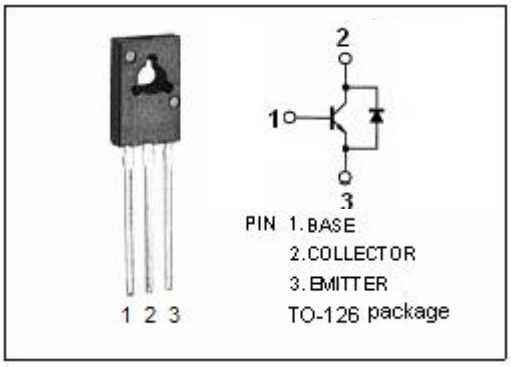
Silicon NPN Power Transistor 3DD4204D

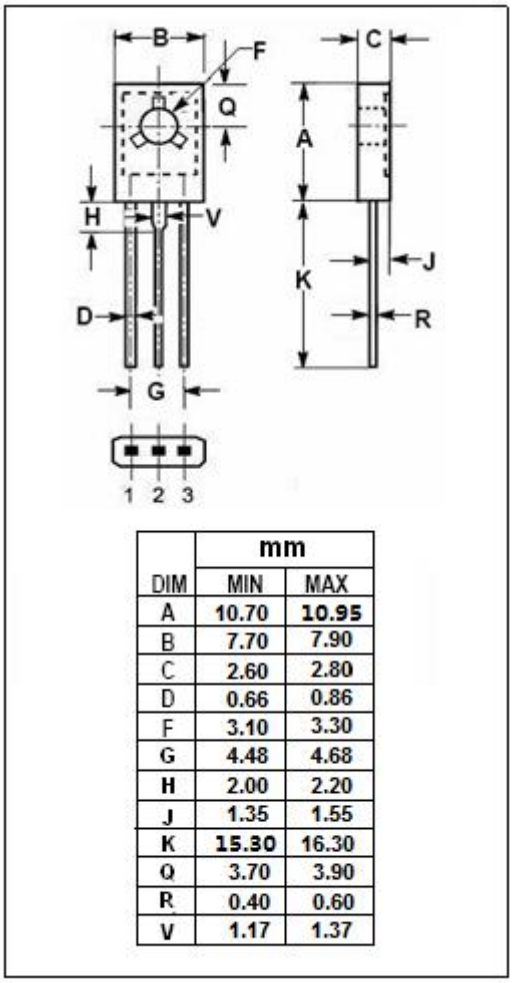


DESCRIPTION

- High Voltage Capability
- High Speed Switching
- Wide Area of Safe Operation

APPLICATIONS

- Fluorescent lamp
- Electronic ballast
- Electronic transformer
- Switch mode power supply



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	700	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	9	V
I_C	Collector Current-Continuous	3	A
P_C	Collector Power Dissipation @T_C=25℃	30	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65~150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 10mA ;I_B= 0	400			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	IC=1mA,IB=0	700			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA ;I_C= 0	9			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 0.5A; I_B= 0.1A			0.8	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 1.5A; I_B= 0.5A			2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 1A; I_B= 0.25A			1.6	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 700V; I_E= 0			100	μA
I_{CEO}	Collector Cutoff Current	V_{CE}= 400V; I_B= 0			50	μA
h_{FE-1}	DC Current Gain	I_C= 5mA ; V_{CE}= 5V	6		40	
h_{FE-2}	DC Current Gain	I_C= 0.5A ; V_{CE}= 5V	8	21	40	
Switching Times						
t_s	Storage Time	I_C= 2A; IB1=-IB2=0.4A			4.0	μs
t_f	Fall Time				0.7	μs