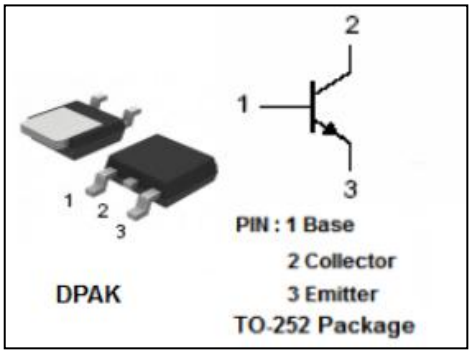
Isc Silicon NPN Power Transistor — MJE13005D

DESCRIPTION

- High Voltage Capability
- High Speed Switching
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

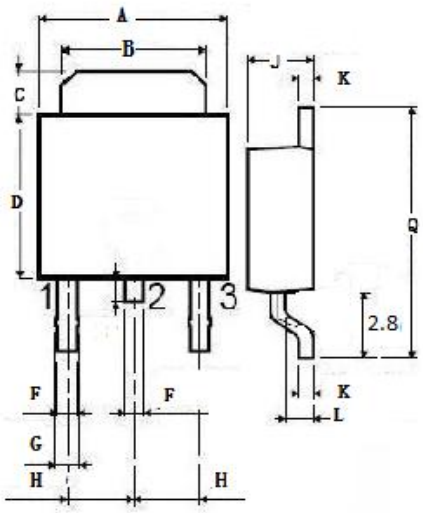


APPLICATIONS

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

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	4	A
P_C	Collector Power Dissipation @T_C=25℃	65	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃



	mm	
DIM	MIN	MAX
A	6.4	6.6
B	5.2	5.4
C	1.3	1.7
D	5.2	5.7
F	0.6	0.7
G	0.65	0.75
H	2.1	2.5
J	2.1	2.4
K	0.4	0.6
L	0.9	1.1
Q	9.5	10

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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
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA ;I_C= 0	9			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 2A; I_B= 0.5A			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 2A; I_B= 0.5A			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 700V; I_E= 0			0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 9V; I_C= 0			0.1	mA
h_{FE-1}	DC Current Gain	I_C= 5mA ; V_{CE}= 5V	10			
h_{FE-2}	DC Current Gain	I_C= 1A ; V_{CE}= 5V	10		40	