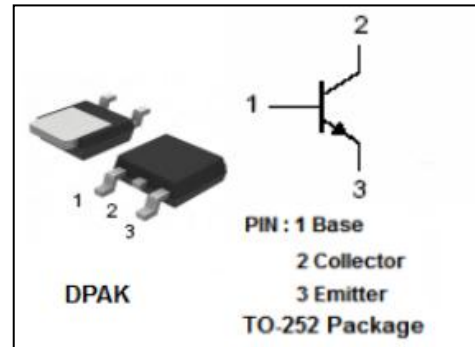


Isc Silicon NPN Power Transistor
MJE13005D
DESCRIPTION

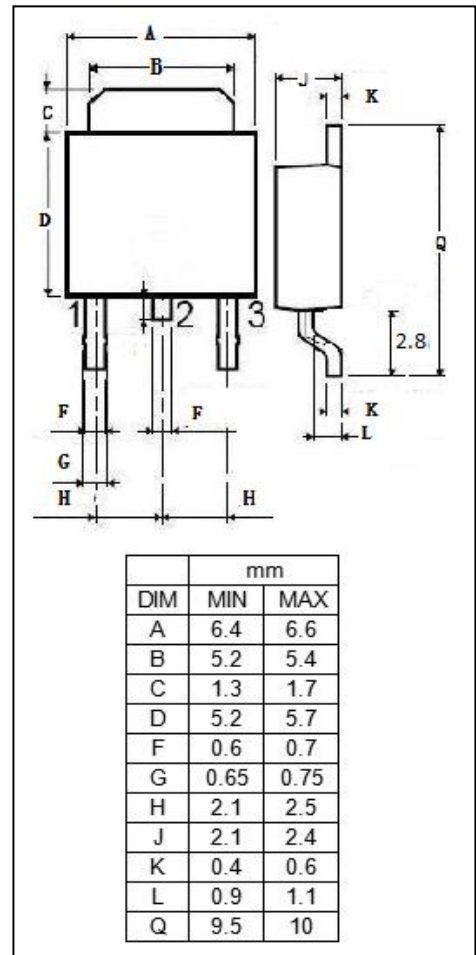
- High Voltage Capability
- High Speed Switching
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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


ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

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 @ $T_c=25^{\circ}\text{C}$	65	W
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~150	$^{\circ}\text{C}$



isc Silicon NPN Power Transistor

MJE13005D

ELECTRICAL CHARACTERISTICS

T_C=25°C 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	

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