



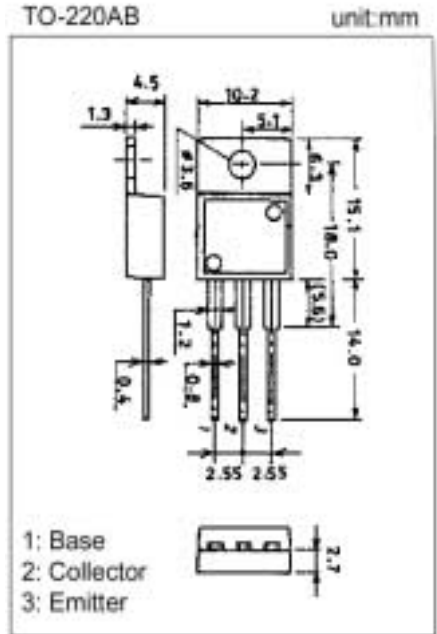
MJE13005B

NPN SILICON TRANSISTOR

ELECTRONIC TRANSFORMERS ,
POWER SWITCHING CIRCUIT

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V _{CB0}	700	V
Collector-Emitter Voltage	V _{CEO}	400	V
Emitter-Base Voltage	V _{EB0}	9	V
Collector Current	I _c	4	A
Collector Power Dissipation $T_{amb}=25^{\circ}C$ $T_{case}=25^{\circ}C$	P _{tot}	1.5 75	W
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	-55~+150	°C



ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	MAX.	UNIT
Collector-Emitter Sustaining Voltage	V(BR)CEO	I _c =1mA, I _B =0	400	-	V
Collector-Base Breakdown Voltage	V(BR)CBO	I _E =0, I _c =1mA	700	-	V
Emitter-Base Breakdown Voltage	V(BR) EBO	I _E =1mA, I _C =0	9	-	V
Collector Cut off current	I _{CBO}	V _{CB} =700V, I _E =0	-	10 00	μ A
Collector-Emitter Cut off Current	I _{CEO}	V _{CE} =400V, I _B =0	-	1000	μ A
Emitter-Base Cut off Voltage	I _{EBO}	V _{EB} =9V, I _c =0	-	1000	μ A
DC Current Gain	h _{FE}	V _{CE} =5V, I _c =1A	10	40	-
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _c =1A, I _B =0.25A	-	1.0	V
Base-emitter Voltage	V _{BE}	I _E = 1A	-	1.25	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _c =1A, I _B =0.25A	-	1.2	V
Fall Time	t _f	I _c =2A I _{B1} =-I _{B2} =0.4A	-	0.9	μ S
Storage Time	t _s	I _c =2A I _{B1} =- I _{B2} =0.4A	-	4	μ S
Frequency Characteristics	f _T	V _{CE} =10V, I _c =0.5A, f=1MHz	5	-	MHz