



MJE13002A

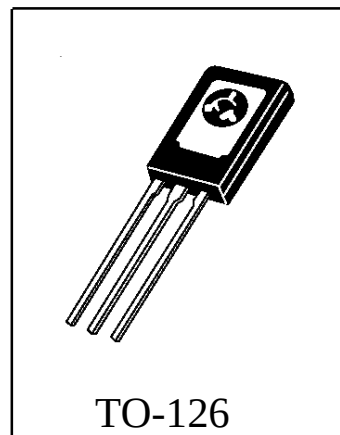
SILICON NPN TRIPLE DIFFUSED MESA TYPE

APPLICATION:

ELECTRONIC TRANSFORMERS ,
POWER SWITCHING CIRCUIT

MAXIMUM RATINGS (T_c=25 ±)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V _{CB0}	600	V
Collector-Emitter Voltage	V _{CEO}	400	V
Emitter-Base Voltage	V _{EB0}	9	V
Collector Current	I _c	1	A
Collector Power Dissipation	P _c	20	W
Junction Temperature	T(j)	150	°C
Storage Temperature Range	T _{stg}	-55~+150	°C



ELECTRICAL CHARACTERISTICS (T_c=25 ±)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	MAX.	UNIT
Collector-Emitter Sustaining Voltage	V _{CEO(sus)}	I _c =10m A, I _B =0	400	–	V
Collector-Base Breakdown Voltage	V(BR)CBO	I _E =0, I _c =1m A	600	–	V
Emitter-Base Breakdown Voltage	V(BR) EBO	I _E =1mA, I _C =0	9	–	V
Collector-Base Cut off current	I _{CBO}	V _{CB} =600V I _E =0	–	100	μ A
Collector-Emitter Cut off Current	I _{CEO}	V _{CE} =400V I _B =0	–	50	μ A
Emitter-Base Cut off Current	I _{EBO}	V _{EB} =7V I _c =0	–	10	μ A
Small-signal Current Gain	h _{FE}	V _{CE} =10V, I _c =0.1A,	10	40	–
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _c =0.5A, I _B =0.1A	–	1.2	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _c =0.5A, I _B =0.1A	–	1.1	V
Fall Time	t _f	I _c =1A	–	0.7	μ S
Storage Time	t _s	I _{B1} =-1 I _{B2} =0.2A	–	3	μ S
Frequency Characteristics	f _T	V _{CE} =10V, I _C =0.1A, f=1MHz	4	–	MHz