

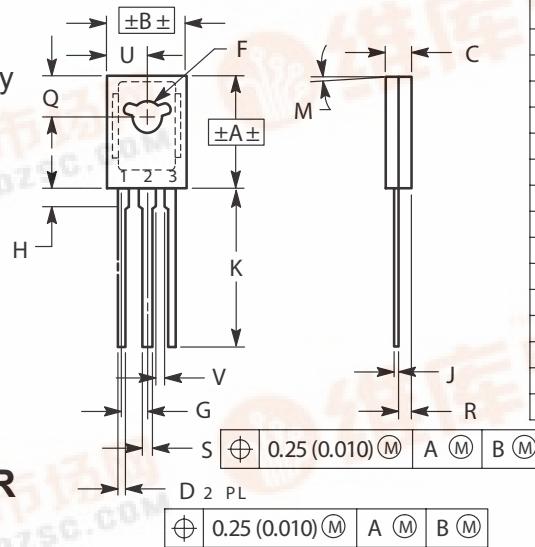


POWER TRANSISTOR E13002

SWITCHING REGULATOR APPLICATION

TO-126

- High speed switching
- Suitable for switching regulator and motor control
- Case : TO-126 molded plastic body



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.425	0.435	10.80	11.04
B	0.295	0.305	7.50	7.74
C	0.095	0.105	2.42	2.66
D	0.020	0.026	0.51	0.66
F	0.115	0.130	2.93	3.30
G	0.094 BSC		2.39 BSC	
H	0.050	0.095	1.27	2.41
J	0.015	0.025	0.39	0.63
K	0.575	0.655	14.61	16.63
M	5 TYP		5 TYP	
Q	0.148	0.158	3.76	4.01
R	0.045	0.065	1.15	1.65
S	0.025	0.035	0.64	0.88
U	0.145	0.155	3.69	3.93
V	0.040	±±±	1.02	±±±

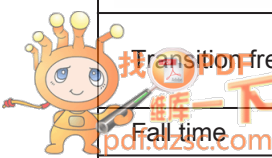
NPN SILICON TRANSISTOR

FEATURES Tc=25°C unless otherwise specified

Parameter	Symbol	Value	UNIT
Power dissipation	P _{CM}	1.2	W
Collector current	I _{CM}	1.0	A
Operating and storage junction temperature range	T _J , T _{STG}	-55 °C to +150 °C	°C

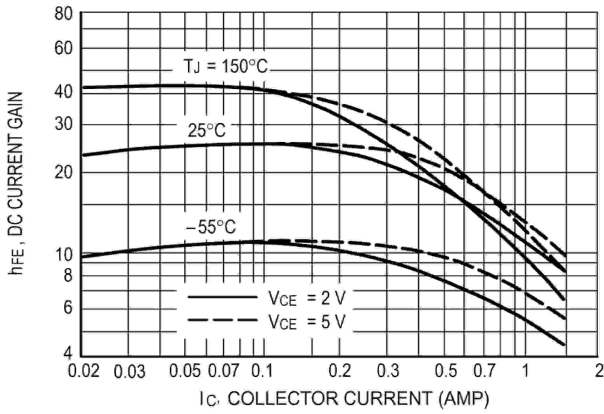
ELECTRICAL CHARACTERISTICS Tc=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	600		V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	400		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	6		V
Collector cut-off current	I _{CBO}	V _{CB} =600V, I _E =0		100	μA
Emitter cut-off current	I _{EBO}	V _{EB} =6V, I _C =0		100	μA
DC current gain	h _{FE(1)}	V _{CE} =10V, I _C =100mA	8	60	
	h _{FE(2)}	V _{CE} =10V, I _C =200mA	9	40	
	h _{FE(3)}	V _{CE} =10V, I _C =10mA	6		
Collector-emitter saturation voltage	V _{CEsat}	I _C =200mA, I _B =40mA		0.8	V
Base-emitter saturation voltage	V _{BEsat}	I _C =200mA, I _B =40mA		1.1	V
Transition frequency	f _T	V _{CE} =10V, I _C =100mA f=1MHz	5		MHz
Fall time	t _r	I _C =1A, I _{B1} =-I _{B2} =0.2A,		0.5	μS
Storage time	t _s	V _{CC} =100V		2.5	μS

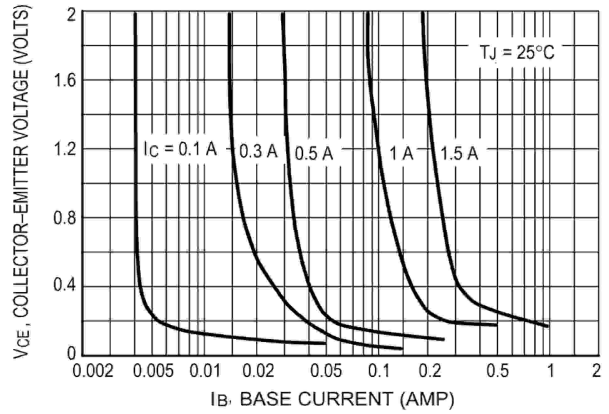




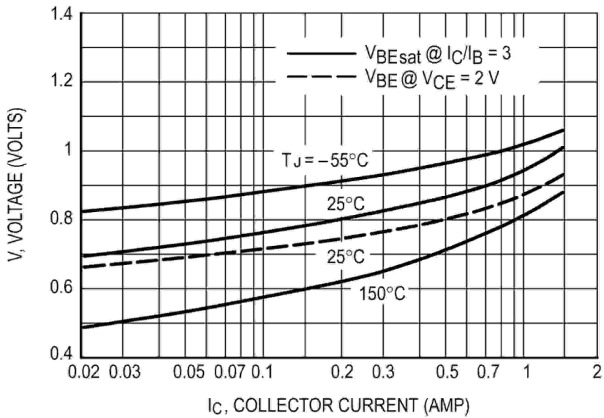
RATINGS AND CHARACTERISTIC CURVES E13002



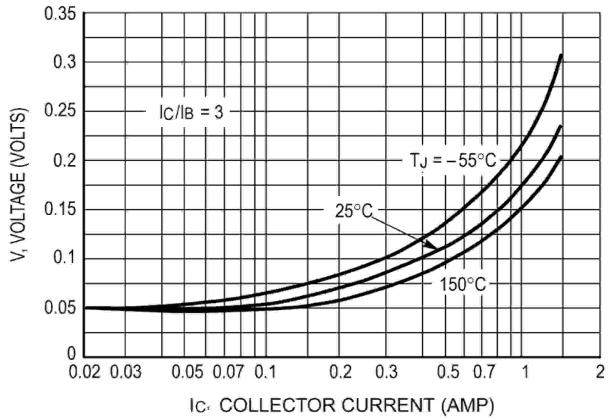
DC Current Gain



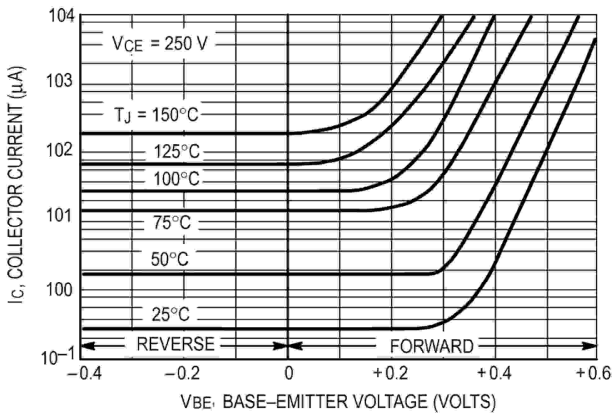
Collector Saturation Region



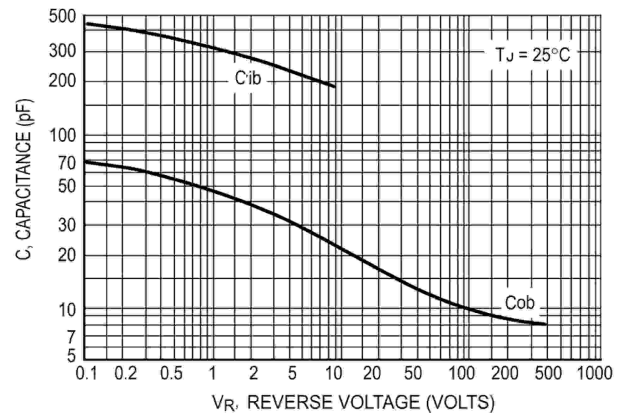
Base-Emitter Voltage



Collector-Emitter Saturation Region



Collector Cutoff Region



Capacitance