



Features

- Power Switching Applications

Package Marking and Ordering Information

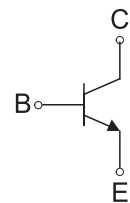
Product ID	Pack	Packing Method	Qty(PCS)
ST13003-K	TO-18	Bulk	200



TO-18

Maximum Ratings (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	700	V
V_{CEO}	Collector-Emitter Voltage	500	V
V_{EBO}	Emitter-Base Voltage	9	V
I_C	Collector Current -Continuous	1.5	A
P_c	Collector Dissipation	1.25	W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

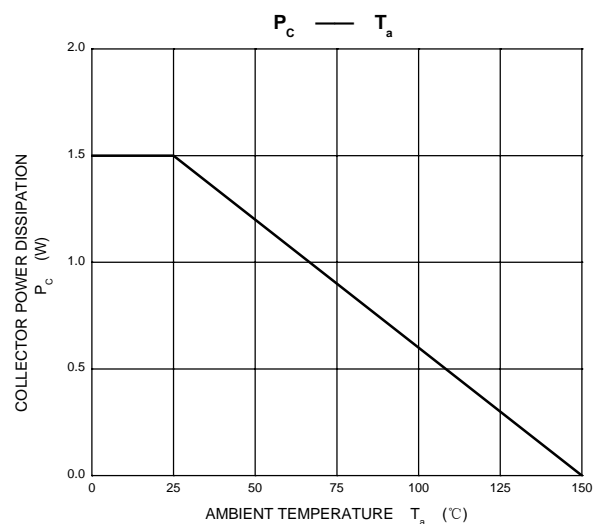
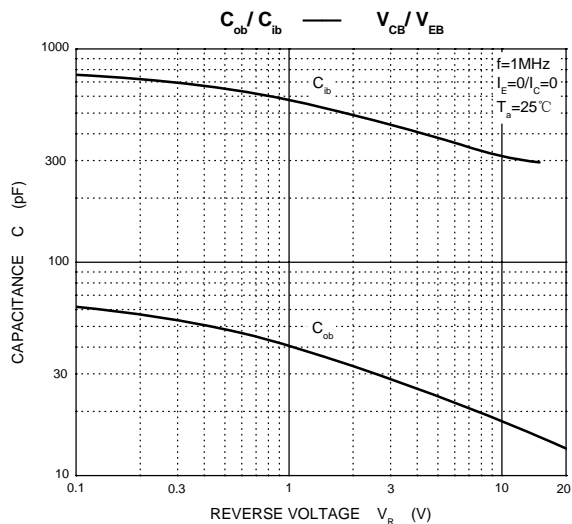
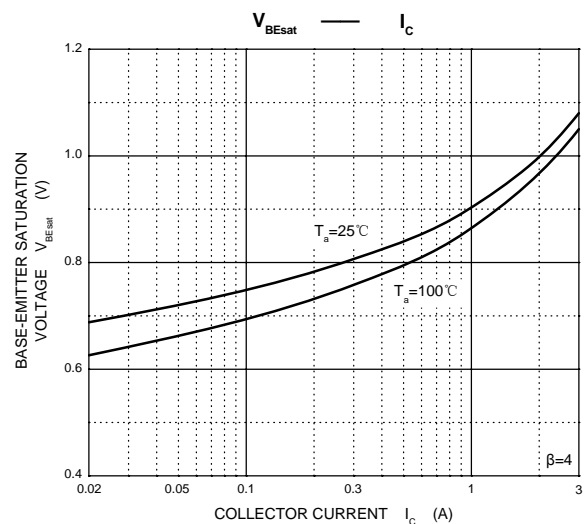
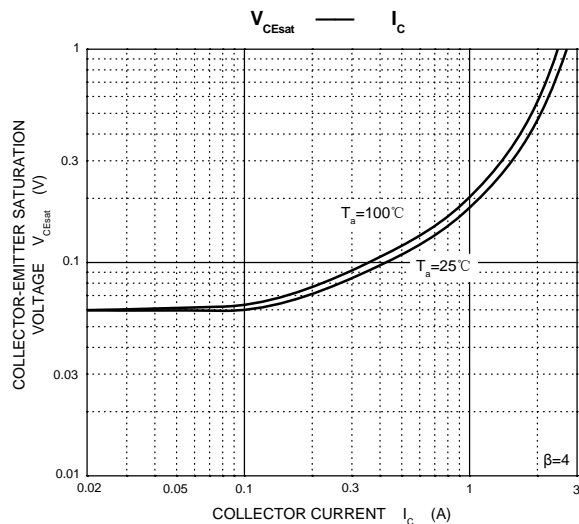
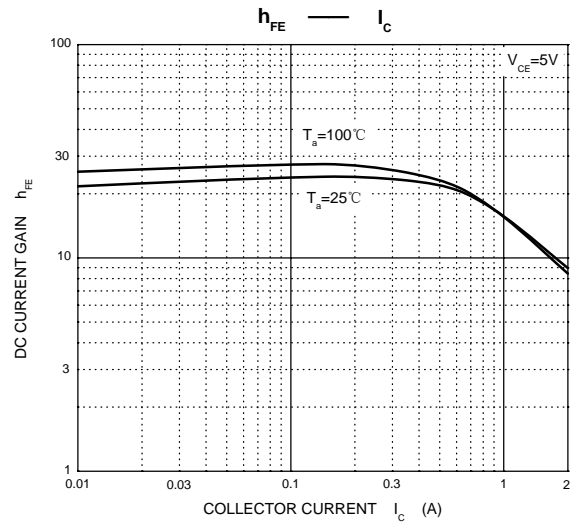
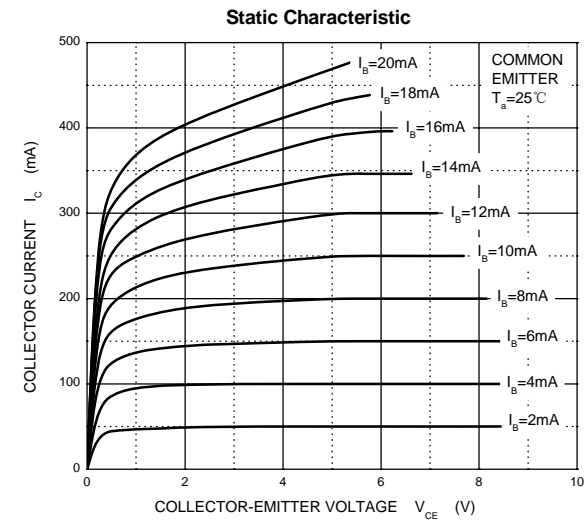


Electrical Characteristics(Ta=25°C unless otherwise specified)

Parameter	symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=5mA, I_E=0$	700		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	500		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=2mA, I_C=0$	9		V
Collector cut-off current	I_{CBO}	$V_{CB}=680V, I_E=0$		1	mA
Collector cut-off current	I_{CEO}	$V_{CE}=410V, I_B=0$		0.5	mA
Emitter cut-off current	I_{EBO}	$V_{EB}=7V, I_C=0$		1	mA
DC current gain	h_{FE1}	$V_{CE}=5V, I_C=0.2A$	20	25	
	h_{FE2}	$V_{CE}=5V, I_C=1A$	5		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=1A, I_B=0.2A$		0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=1A, I_B=0.2A$		1.2	V
Transition frequency	f_T	$V_{CE}=10V, I_C=100mA, f=1MHz$	5		MHz
Storage time	t_s	$I_C=250mA$	2	4	μs

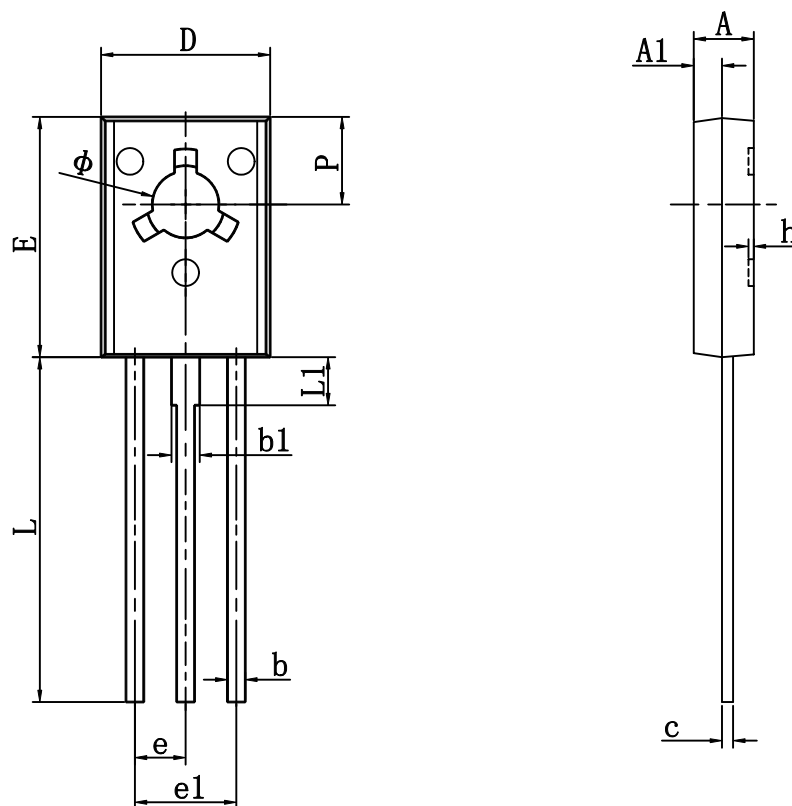


Typical Characteristics





TO-18 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	2.500	2.900	0.098	0.114
A1	1.100	1.500	0.043	0.059
b	0.660	0.860	0.026	0.034
b1	1.170	1.370	0.046	0.054
c	0.450	0.600	0.018	0.024
D	7.400	7.800	0.291	0.307
E	10.600	11.000	0.417	0.433
e	2.290 TYP		0.090 TYP	
e1	4.480	4.680	0.176	0.184
h	0.000	0.300	0.000	0.012
L	15.300	15.700	0.602	0.618
L1	2.100	2.300	0.083	0.091
P	3.900	4.100	0.154	0.161
ϕ	3.000	3.200	0.118	0.126



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