

FEATURES

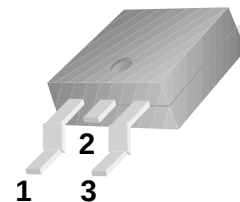
Power dissipation

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	3	A
P_C	Collector Power Dissipation	1.2	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-150	$^{\circ}\text{C}$

TO-252

1. BASE
2. COLLECTOR
3. EMITTER

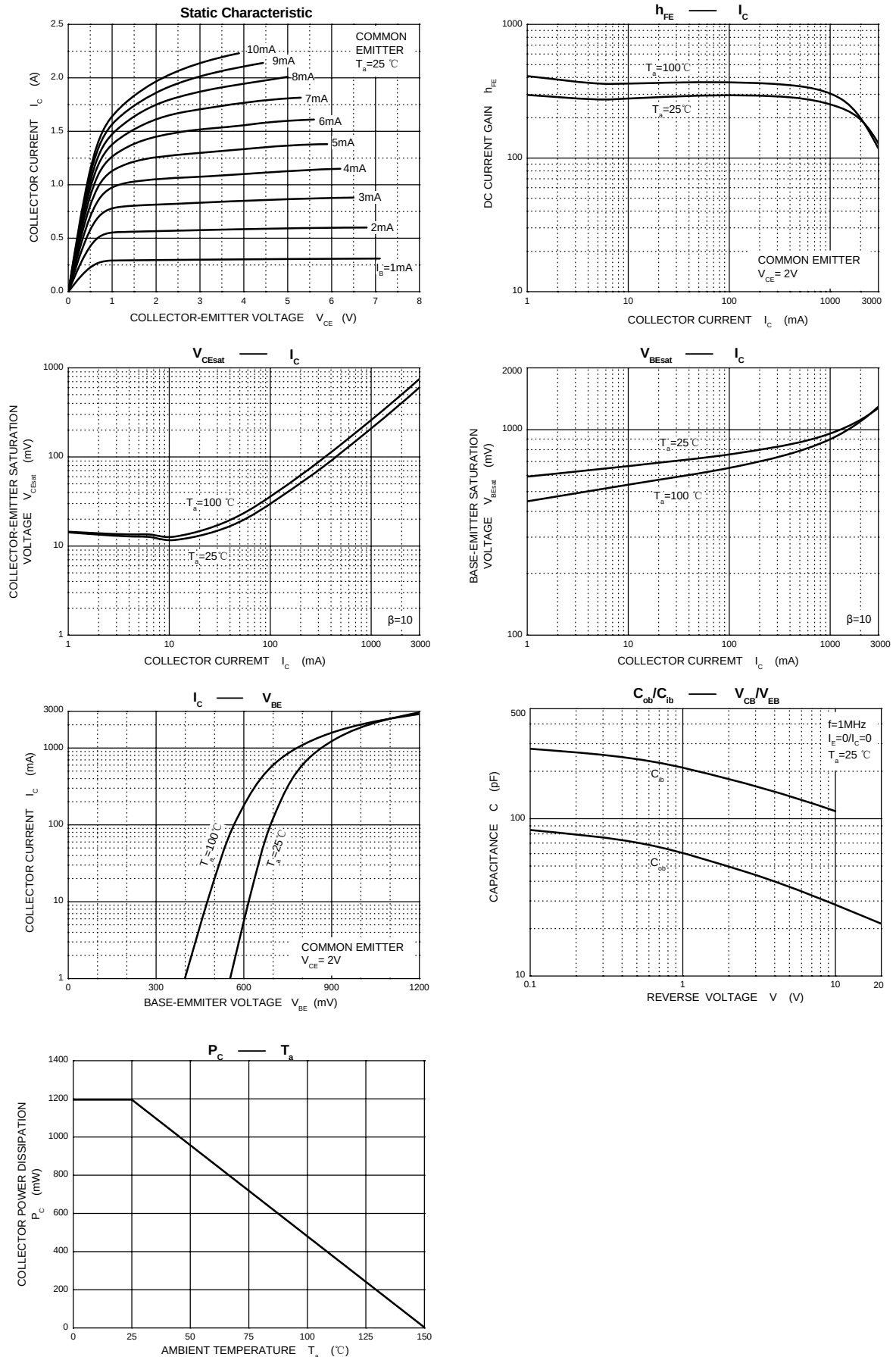


ELECTRICAL CHARACTERISTICS($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

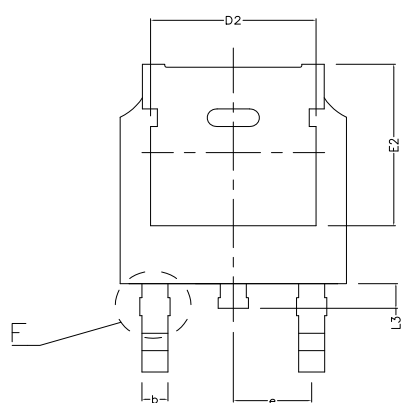
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu\text{A}$, $I_E=0$	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10\text{mA}$, $I_B=0$	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100\mu\text{A}$, $I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB} = 40\text{V}$, $I_E=0$			1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 30\text{V}$, $I_B=0$			10	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 6\text{V}$, $I_C=0$			1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=2\text{V}$, $I_C= 1\text{A}$	160		320	
	$h_{FE(2)}$	$V_{CE}=2\text{V}$, $I_C= 100\text{mA}$	32			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C= 2\text{A}$, $I_B= 0.2\text{A}$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C= 2\text{A}$, $I_B= 0.2\text{A}$			1.5	V
Transition frequency	f_T	$V_{CE}= 5\text{V}$, $I_C=0.1\text{A}$ $f=10\text{MHz}$	50			MHz

TRANSISTOR(NPN)

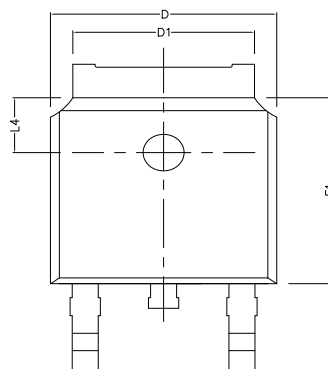
Typical characteristics



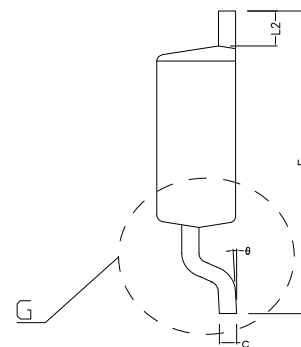
TO -252 Package Outline Dimensions (Units: mm)



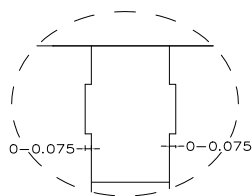
BOTTOM VIEW



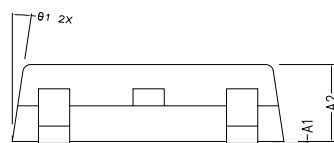
TOP VIEW



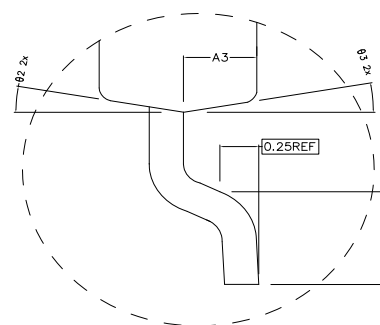
SIDE VIEW



DETAIL F



SIDE VIEW



DETAIL G

COMMON DIMENSIONS (UNITS OF MEASURE IS mm)			
	MIN	NORMAL	MAX
A1	0.000	0.100	0.150
A2	2.200	2.300	2.400
A3	1.020	1.070	1.120
b	0.710	0.760	0.810
c	0.460	0.508	0.550
D	6.500	6.600	6.700
D1	5.330REF		
D2	4.830REF		
E	9.900	10.100	10.300
E1	6.000	6.100	6.200
E2	5.600REF		
e	2.286TYPE		
L	1.400	1.550	1.700
L2	1.10REF		
L3	0.80REF		
L4	1.80REF		
θ	0~8°		
θ1	7° TYPE		
θ2	10° TYPE		
θ3	10° TYPE		