

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV

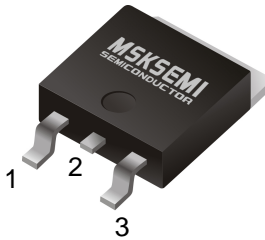


GDT



PLED

Product data sheet



TO-252

TRANSISTOR (NPN)

**FEATURES**

Power Dissipation

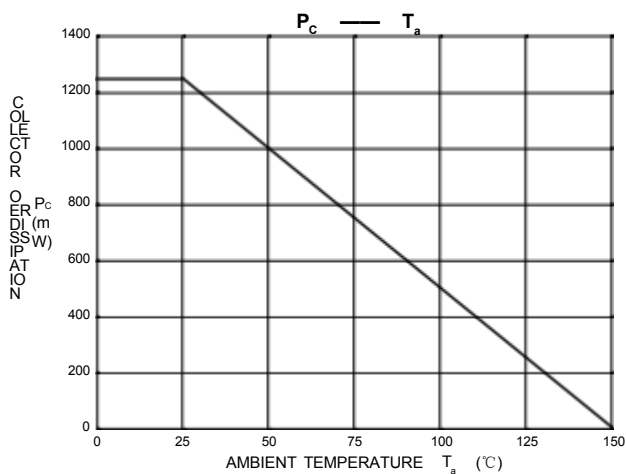
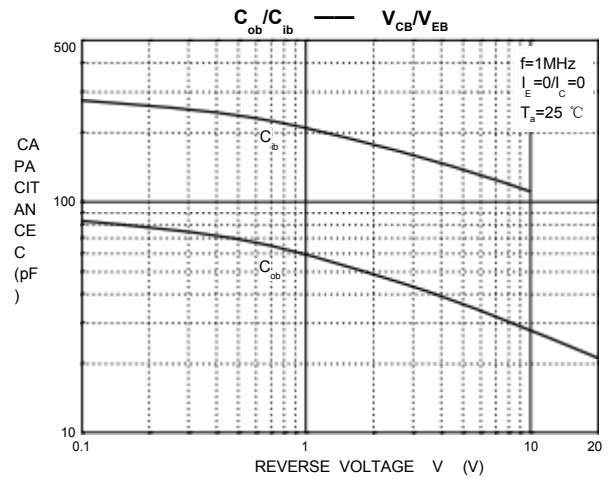
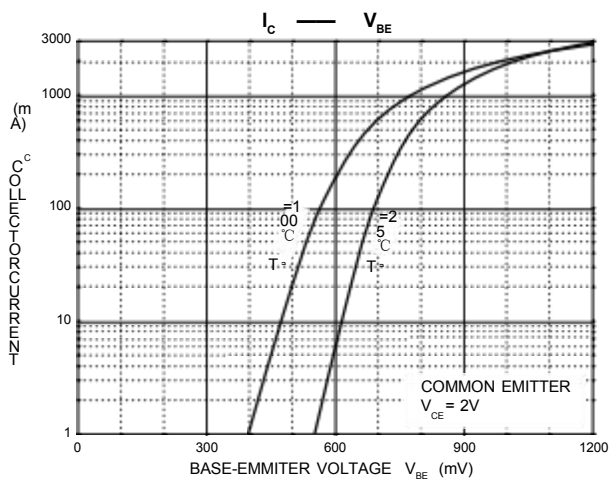
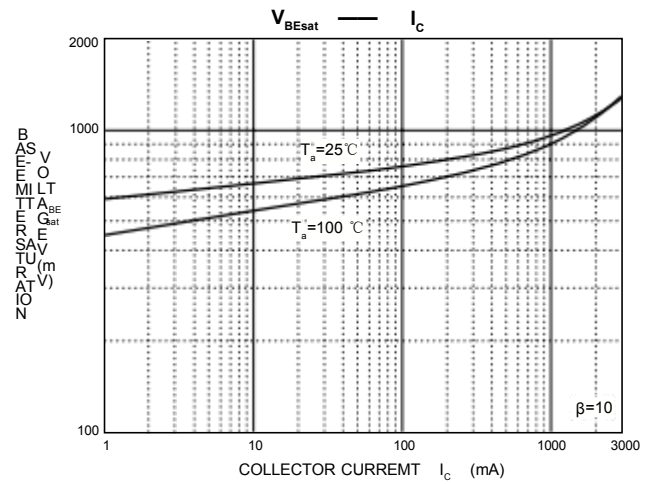
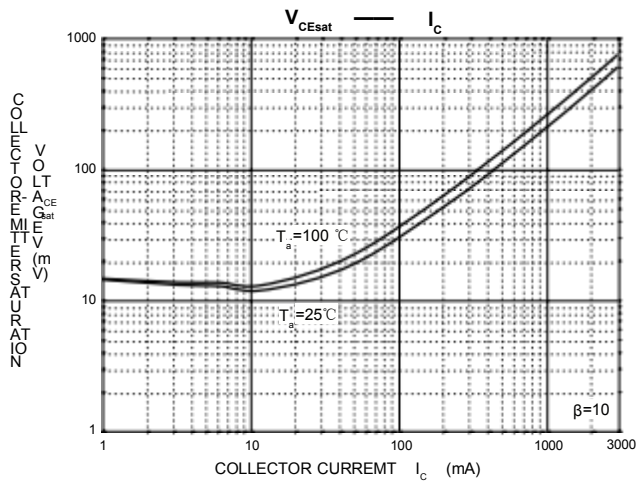
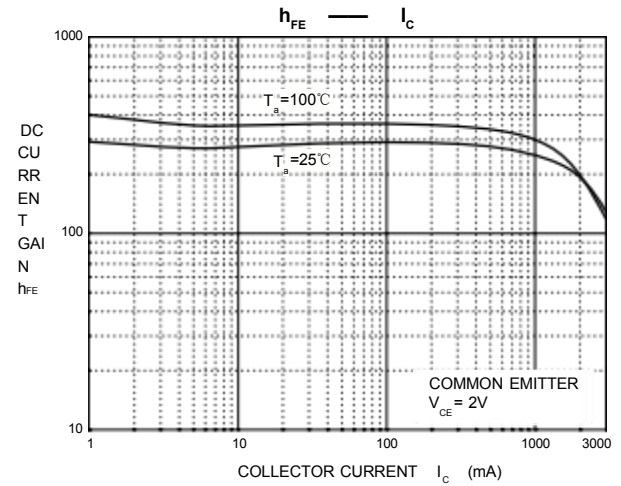
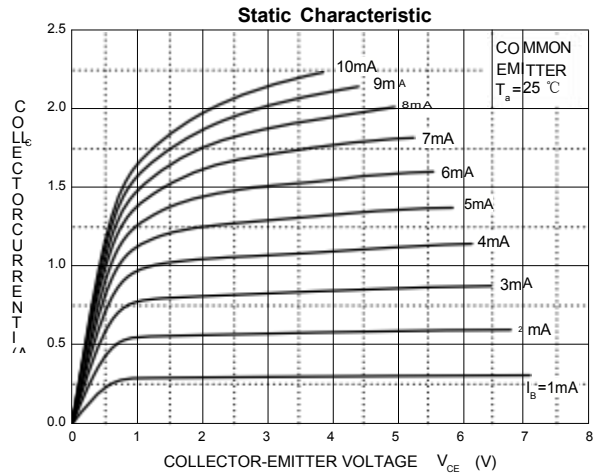
- 1. BASE
- 2. COLLECTOR
- 3 .EMITTER

**MAXIMUM RATINGS (Ta=25°C unless otherwise noted)**

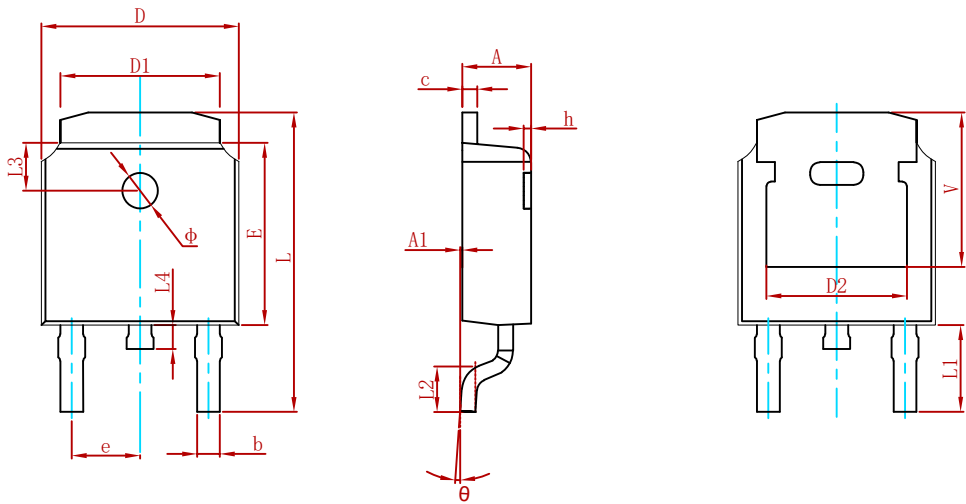
Symbol	Parameter	Value	Unit
<b>V<sub>CBO</sub></b>	Collector-Base Voltage	40	V
<b>V<sub>CEO</sub></b>	Collector-Emitter Voltage	30	V
<b>V<sub>EBO</sub></b>	Emitter-Base Voltage	6	V
<b>I<sub>c</sub></b>	Collector Current -Continuous	3	A
<b>P<sub>c</sub></b>	Collector Power Dissipation	1.25	W
<b>T<sub>J</sub>,T<sub>stg</sub></b>	Operation Junction and Storage Temperature Range	-55-150	°C

**ELECTRICAL CHARACTERISTICS ( Ta=25°C unless otherwise specified )**

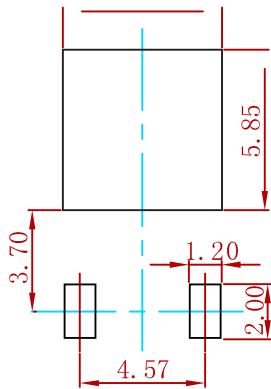
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR) <sub>CBO</sub>	I <sub>C</sub> = 100μA, I <sub>E</sub> =0	40			V
Collector-emitter breakdown voltage	V(BR) <sub>CEO</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> =0	40			V
Emitter-base breakdown voltage	V(BR) <sub>EBO</sub>	I <sub>E</sub> = 100μA, I <sub>C</sub> =0	6			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = 40 V, I <sub>E</sub> =0			1	μA
Collector cut-off current	I <sub>CEO</sub>	V <sub>CE</sub> = 30 V, I <sub>B</sub> =0			10	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 6 V, I <sub>C</sub> =0			1	μA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 2 V, I <sub>C</sub> = 1A	60		400	
Collector-emitter saturation voltage	V <sub>CE (sat)</sub>	I <sub>C</sub> = 2A, I <sub>B</sub> = 0.2 A			0.5	V
Base-emitter saturation voltage	V <sub>BE (sat)</sub>	I <sub>C</sub> = 2A, I <sub>B</sub> = 0.2 A			1.5	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> =0.1A f =10MHz		90		MHz



PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	0.000	0.127	0.000	0.005
b	0.635	0.770	0.025	0.030
c	0.460	0.580	0.018	0.023
D	6.500	6.700	0.256	0.264
D1	5.100	5.460	0.201	0.215
D2	4.830 REF.		0.190 REF.	
E	6.000	6.200	0.236	0.244
e	2.186	2.386	0.086	0.094
L	9.712	10.312	0.382	0.406
L1	2.900 REF.		0.114 REF.	
L2	1.400	1.700	0.055	0.067
L3	1.600 REF.		0.063 REF.	
L4	0.600	1.000	0.024	0.039
Φ	1.100	1.300	0.043	0.051
θ	0°	8°	0°	8°
h	0.000	0.300	0.000	0.012
V	5.250 REF.		0.207 REF.	



Note:  
1.Controlling dimension:in millimeters.  
2.General tolerance:± 0.05mm.  
3.The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
2SD882	TO-252	2500

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