TO-263-2L Plastic-Encapsulate Transistors

Features

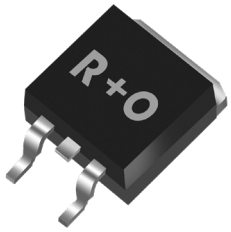
- Medium Power Complementary Silicon Transistors

Collector-Emitter Voltage
VCEO 100V
Collector Current
5 Ampere

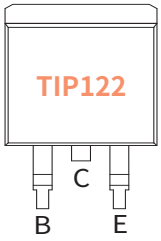
Mechanical Data

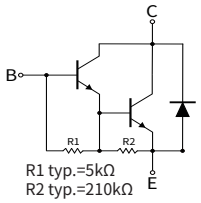
- Case: TO-263-2L
  Molding compound meets UL 94V-0 flammability rating, RoHS-compliant,halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026

TO-263-2L



Function Diagram





Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
TO-263-2L	R3	1.52	800	800	8000	13''

Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Collector-Base Voltage	V_{CBO}	V	100
Collector-Emitter Voltage	V_{CEO}		100
Emitter-Base Voltage	V_{EBO}		5
Collector Current	I_C	A	5
Collector Power Dissipation	P_C	W	2
Storage temperature	T_{stg}	°C	-55 ~+150
Junction temperature	T_j	°C	-55 ~+150
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	°C / W	62.5
Thermal Resistance Junction to Case	$R_{\theta JC}$	°C / W	1.92

Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	SYMBOL	UNIT	Condition	Min	Max
Collector-base breakdown voltag	$V_{CBO(BR)}$	V	I_C=1mA, I_E=0	100	—
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	V	I_C=30mA, I_B=0	100	—
Collector-Base cut-off current	I_{CBO}	mA	V_{CB}=100V, I_E =0	—	0.2
Collector-Emitter cut-off current	I_{CEO}		V_{CB}=50V, I_B =0		0.5
Emitter-Base cut-off current	I_{EBO}		V_{EB}=5.0V, I_C =0	—	2
DC Current Gain	h_{FE}	—	I_C=0.5A, V_{CE}=3.0V	1000	—
			I_C=3.0A, V_{CE}=3.0V	1000	12000
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	V	I_C=3.0A, I_B=12mA	—	2
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		I_C=5.0A, I_B=20mA	—	4
Base-Emitter On Voltage	V_{BE}		V_{CE}=3.0V, I_C=3.0A	—	2.5
Output Capaciance	C_{ob}	pF	V_{CB}=10V,I_E =0,f=0.1MHz	—	200

Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)

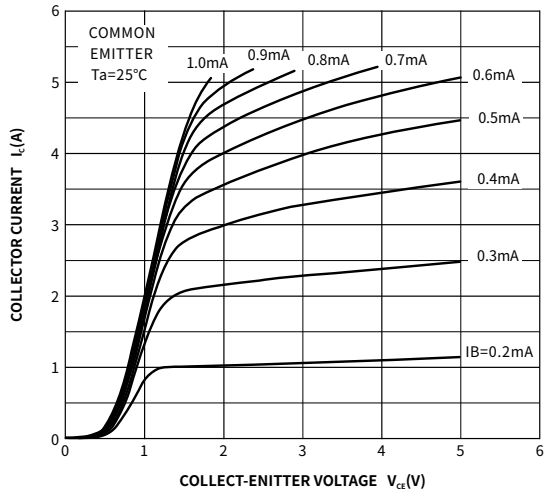


Fig.1 Static Characteristic

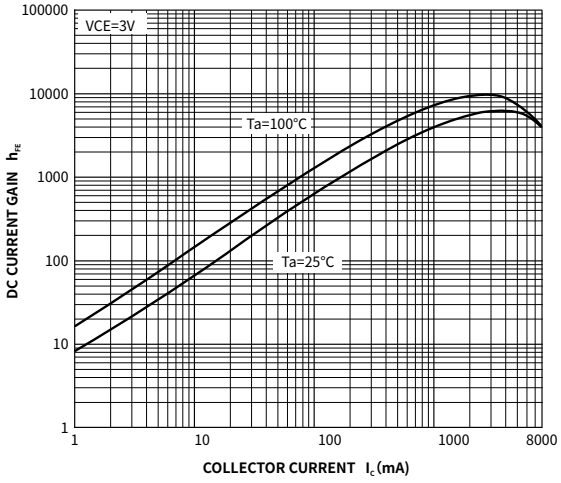


Fig.2 DC Current Gain

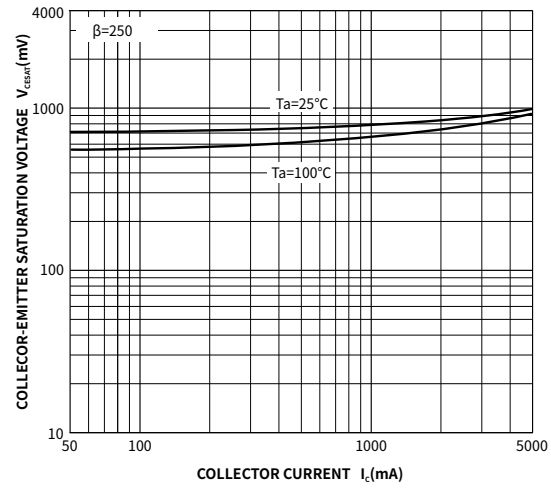


Fig.3 Collector-Emitter Saturation Voltage

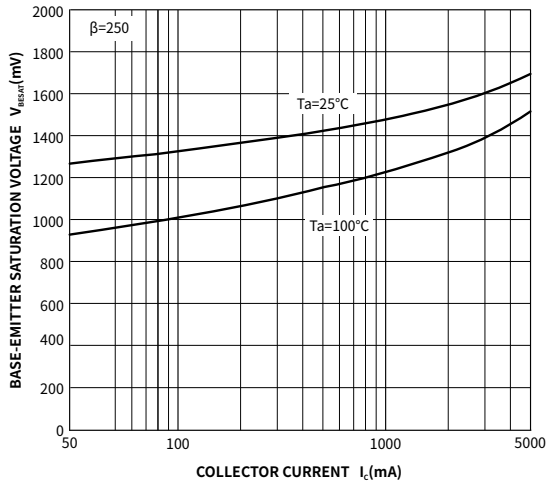


Fig.4 Base-Emitter Saturation Voltage

Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)

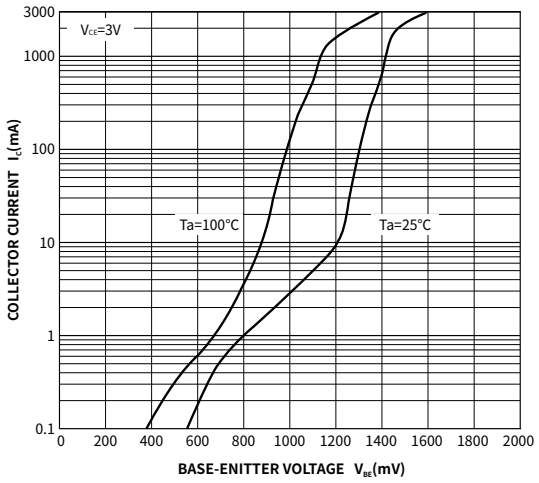


Fig.5 Base-Emitter On Voltage

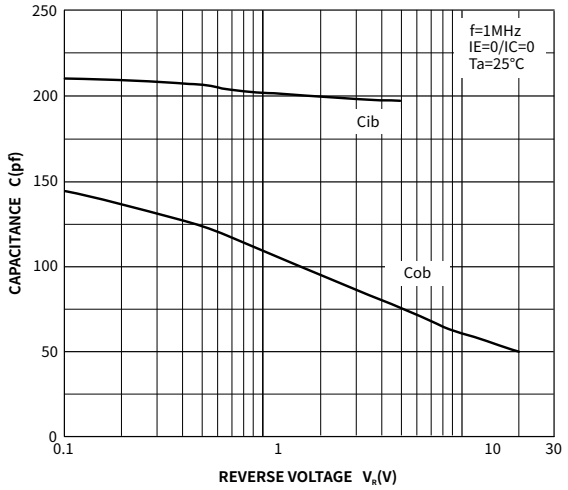
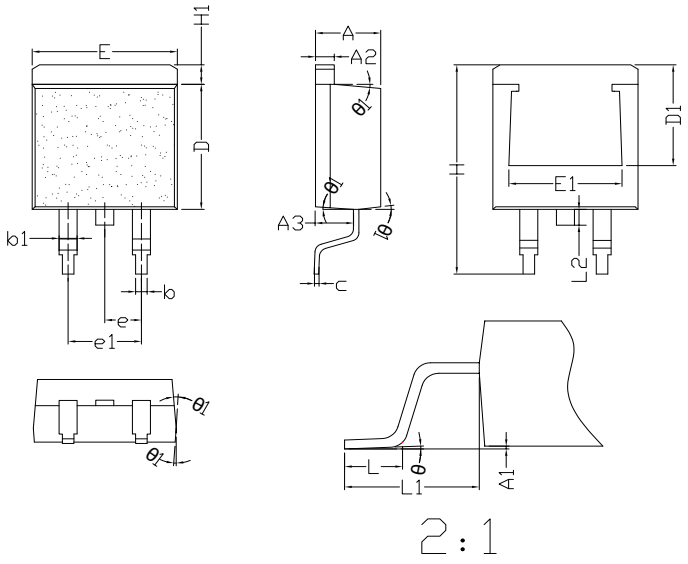


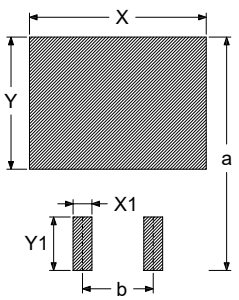
Fig.6 Cob/Cib-$V_{CB}V_{EB}$

Package Outline Dimensions (TO-263-2L)



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.47	4.67	0.176	0.184
A1	-	0.2	-	0.008
A2	1.17	1.37	0.046	0.054
A3	2.50	2.70	0.098	0.106
b	0.71	0.91	0.028	0.036
b1	1.17	1.37	0.046	0.054
c	0.31	0.53	0.012	0.021
D	8.50	9.1	0.335	0.358
D1	7.25REF		0.285 REF	
E	10.01	10.31	0.394	0.406
E1	7.85REF		0.309 REF	
e	2.54TYP		0.10TYP	
e1	4.98	5.18	0.196	0.204
H	14.8	15.5	0.583	0.610
H1	1.12	1.42	0.044	0.056
L	2.34	2.74	0.092	0.108
L1	4.95	5.45	0.195	0.215
L2	1.30	1.70	0.051	0.067
θ	-	5°	-	5°
θ1	3°	9°	3°	9°

Suggested Pad Layout



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
a	16.60	-	0.654	-
b	5.08	-	0.200	-
X	-	12.70	-	0.500
X1	-	1.35	-	0.053
Y	-	9.40	-	0.370
Y1	-	3.80	-	0.150