TIP42C

用途

应用于中功率线性转换电路

APPLICATIONS

Medium Power Linear Switching Applications

产品特性

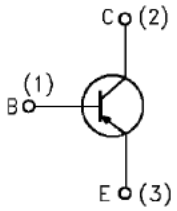
高集电极电压Vceo=100V(min)
与TIP41C互补
RoHS 产品

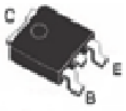
FEATURE

High collector Vceo=100V(min)
Complementary to TIP41C
RoHS product

封装 Package

TO-252





1. 基极 BASE
2. 集电极 COLLECTOR
3. 发射极 EMITTER

绝对最大额定值**Absolute Ratings** (Tc=25℃)

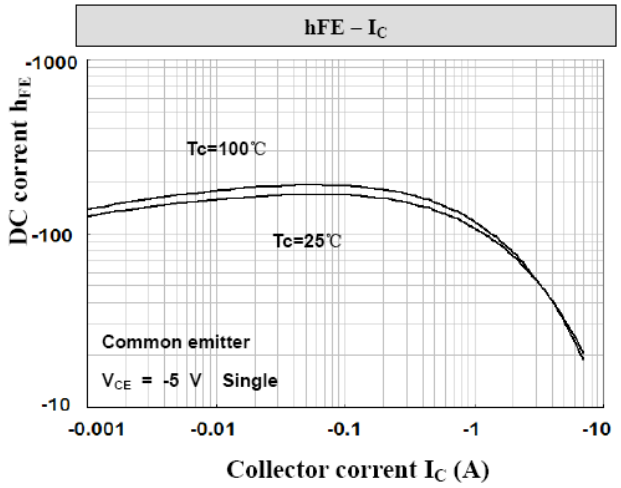
项目 Parameter	符号Symbol	数值Value	单位Unit
集电极－发射极直流电压 Collector-Base Voltage	V_{CBO}	-100	V
集电极－发射极直流电压 Collector-Emitter Voltage	V_{CEO}	-100	V
发射极-基极直流电压 Emitter-Base Voltage	V_{EBO}	-5	V
最大集电极电流 Collector Current(DC)	I_C	-6	A
最大集电极电流 Collector Current(Pulse)	I_{CP}	-10	A
最大基极电流 Base Current	I_B	-2	A
最大集电极耗散功率 Total Dissipation	P_C	65	W
最高结温 Operating Junction Temperature	T_J	+150	℃
存储温度 Storage Temperature Range	T_{STG}	-55～+150	℃

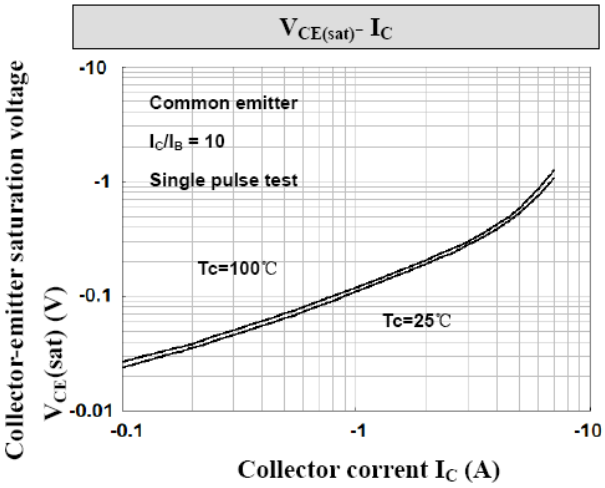
电特性 Electrical Characteristics

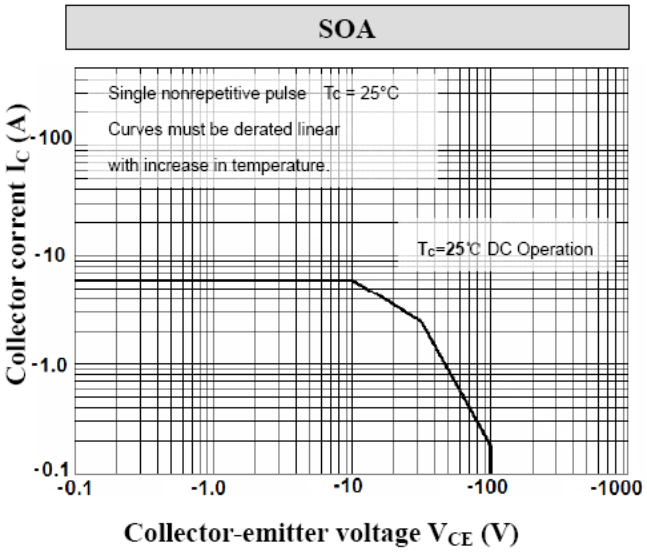
项 目 **Parameter**	测试条件 **Tests conditions**	最小 **Min**	典型 **Typ**	最大 **Max**	单位 **Units**
$V_{(BR)CEO}$	I_C=10mA, I_B=0	-100	-	-	V
V_{CBO}	I_C=1mA, I_B=0	-100	-	-	V
V_{EBO}	I_E=1mA, I_C=0	-6	-	-	V
I_{CBO}	V_{CBO}=100V，I_E=0	-	-	-5	uA
I_{CEO}	V_{CEO}=100V，I_B=0	-	-	-10	uA
I_{EBO}	V_{EBO}=6V，I_C=0	-	-	-5	uA
hFE1	V_{CE}=4V，I_C=0.3A	30	-	-	-
hFE2	V_{CE}=4V，I_C=3A	15	-	75	-
V_{CESAT}	I_C=6A，I_B=0.6A	-	-	-1.5	V
V_{BESAT}	I_C=6A，I_B=0.6A	-	-	-2.0	V
f_T	V_{CE}=10V,I_C=0.5A,f=1MHZ	3	-	-	MHz
Rth(j-c)	结到管壳的热阻 Thermal Resistance Junction Case	-	-	12.5	℃/W

Note:Pulse Test:PW≤300ms,Duty Cycle≤2%

特性曲线 ELECTRICAL CHARACTERISTICS(curves)

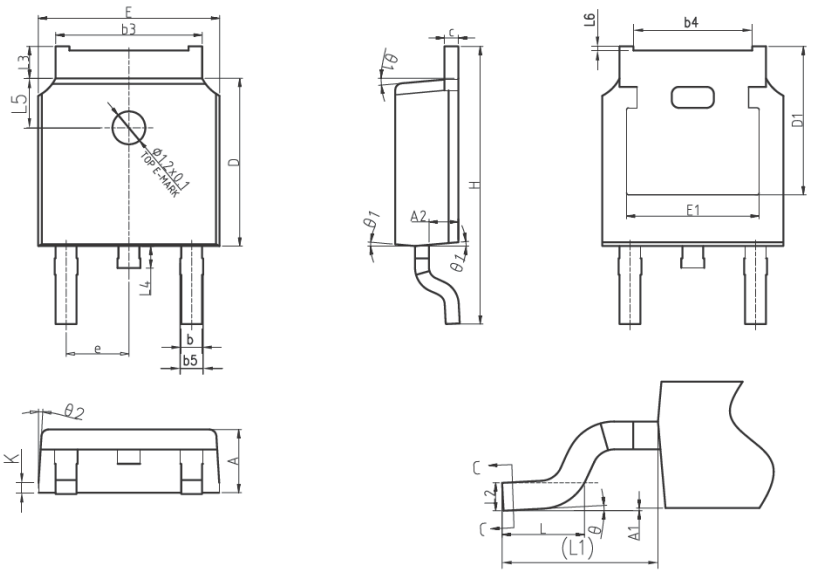






外形尺寸 **PACKAGE MECHANICAL DATA**

TO-252



SYMBOL	mm		
	MIN	NOM	MAX
*A	2.20	2.30	2.38
*A1	0.00	-	0.10
A2	0.97	1.07	1.17
*b	0.72	0.78	0.85
b1	0.71	0.76	0.81
*b3	5.23	5.33	5.46
b4	4.27	4.32	4.37
b5	0.72	0.88	0.93
*c	0.47	0.53	0.58
c1	0.46	0.51	0.56
*D	6.00	6.10	6.20
D1		5.30REF	
*E	6.50	6.60	6.70
E1	4.70	4.83	4.92
*e		2.286BSC	
*H	9.90	10.10	10.30
L	1.40	1.50	1.70
L1		2.90REF	
L2		0.51BSC	
*L3	0.90	-	1.25
*L4	0.60	0.80	1.00
L5	1.70	1.80	1.90
L6	0	0.047	0.123
θ	0°	-	8°
*θ1	5°	7°	9°
θ2	5°	7°	9°
K		0.40REF	