/ Descriptions

TO-251 NPN Silicon NPN transistor in a TO-251 Plastic Package.

/ Features

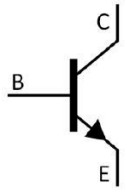
, KTA1042I

Low collector-emitter saturation voltage, complementary to KTA1042I.

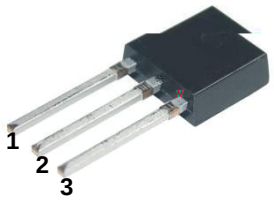
/ Applications

General purpose amplifier.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	O	Y
h_{FE} Range	70 140	120 240

/ Absolute Maximum Ratings(Ta=25)

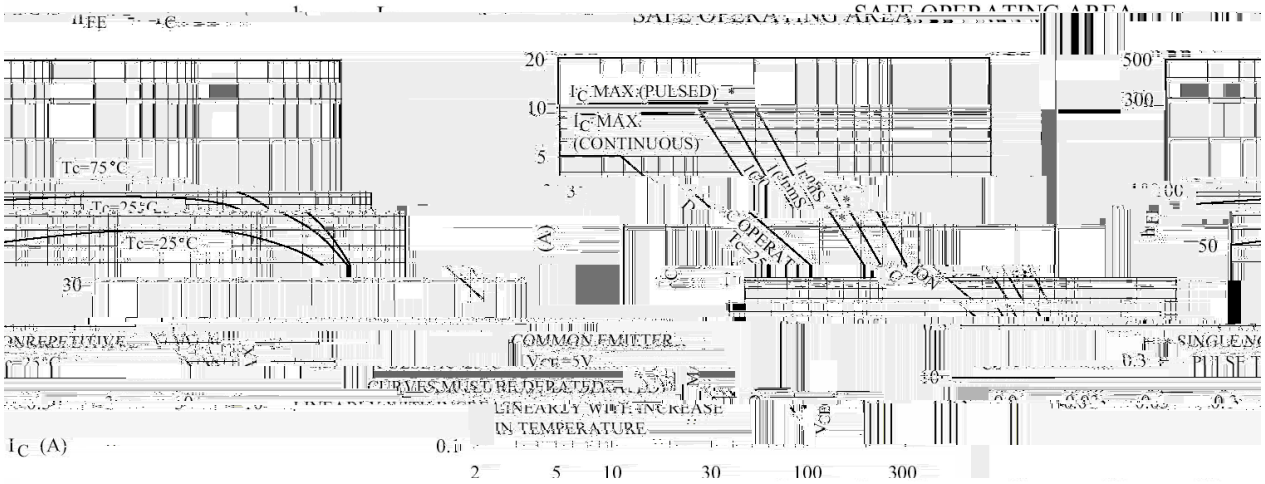
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	100	V
Collector to Emitter Voltage	V_{CEO}	100	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current - Continuous	I_C	5	A
Base Current - Continuous	I_B	0.5	A
Collector Power Dissipation	P_C	20	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

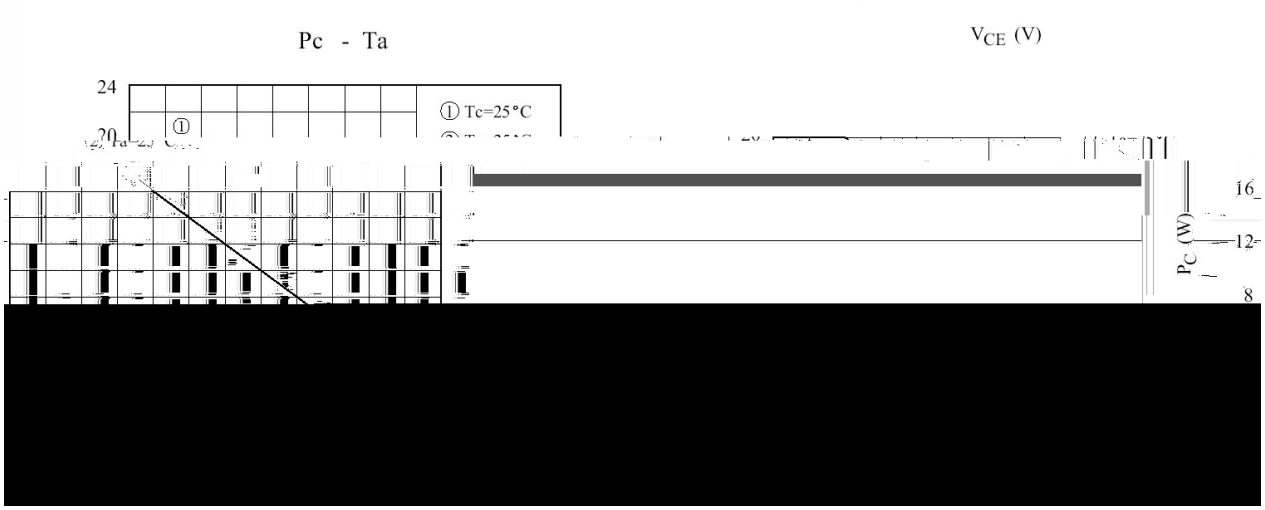
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=50mA I_B=0	100			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=100V I_E=0			100	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=5V I_C=0			1	mA
DC Current Gain	$h_{FE(1)}$	V_{CE}=5V I_C=1A	70		240	
	$h_{FE(2)}$	V_{CE}=5V I_C=4A	20			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=4A I_B=0.4A			2	V
Base to Emitter Voltage	V_{BE}	V_{CE}=5V I_C=1A			1.5	V
Transition Frequency	f_T	V_{CE}=5V I_C=1A		30		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V I_E=0 f=1MHz		40		pF

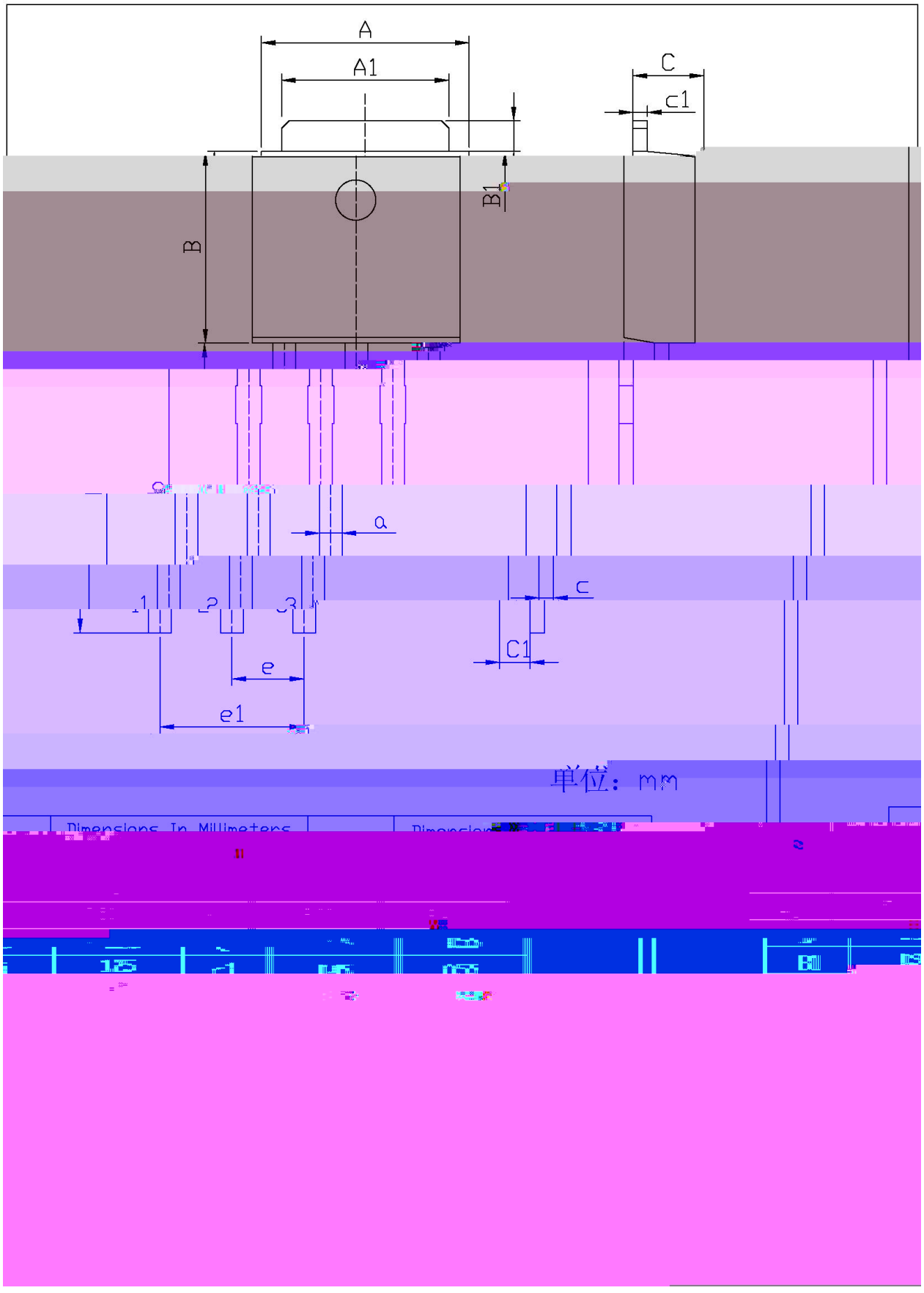
/ Electrical Characteristic Curve



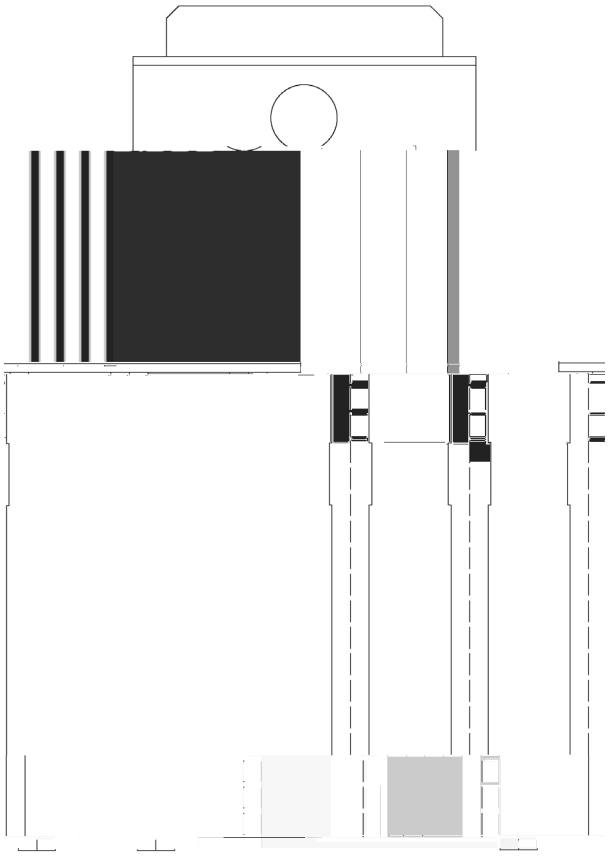




/ Package Dimensions



/ Marking Instructions



BR

C2022I

Y: h_{FE}

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Note:

BR:	Company Code
C2022I:	Product Type.
Y:	h_{FE} Classifications Symbol
****:	Lot No. Code, code change with Lot No.

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