

/ Descriptions

TO-3P NPN Silicon NPN transistor in a TO-3P Plastic Package.

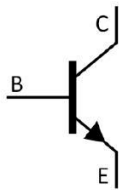
/ Features

High speed switching, wide SOA.

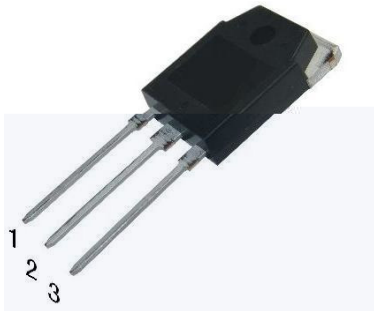
/ Applications

For high voltage, large power supply circuit.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

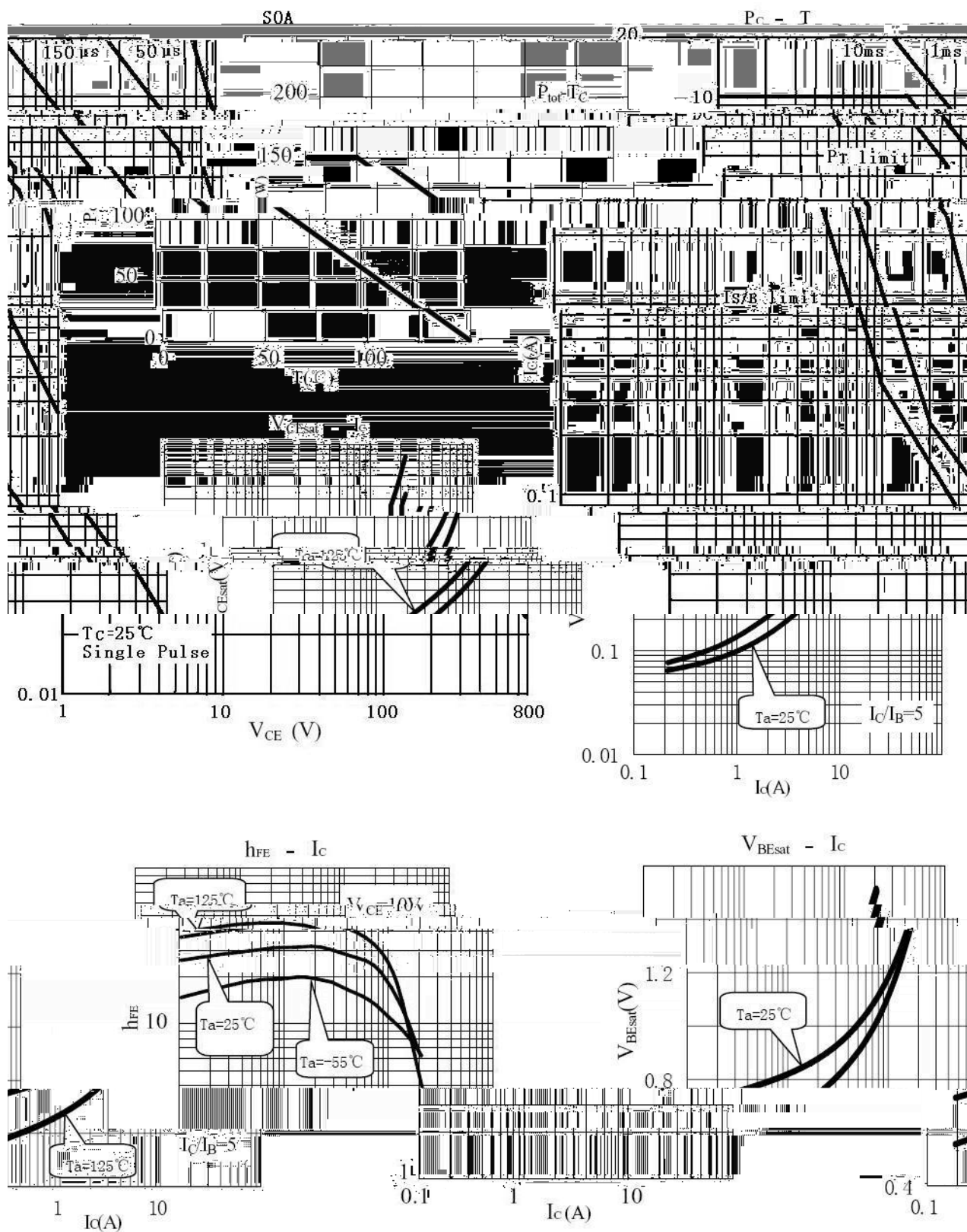
/ h_{FE} Classifications & Marking

See Marking Instructions.

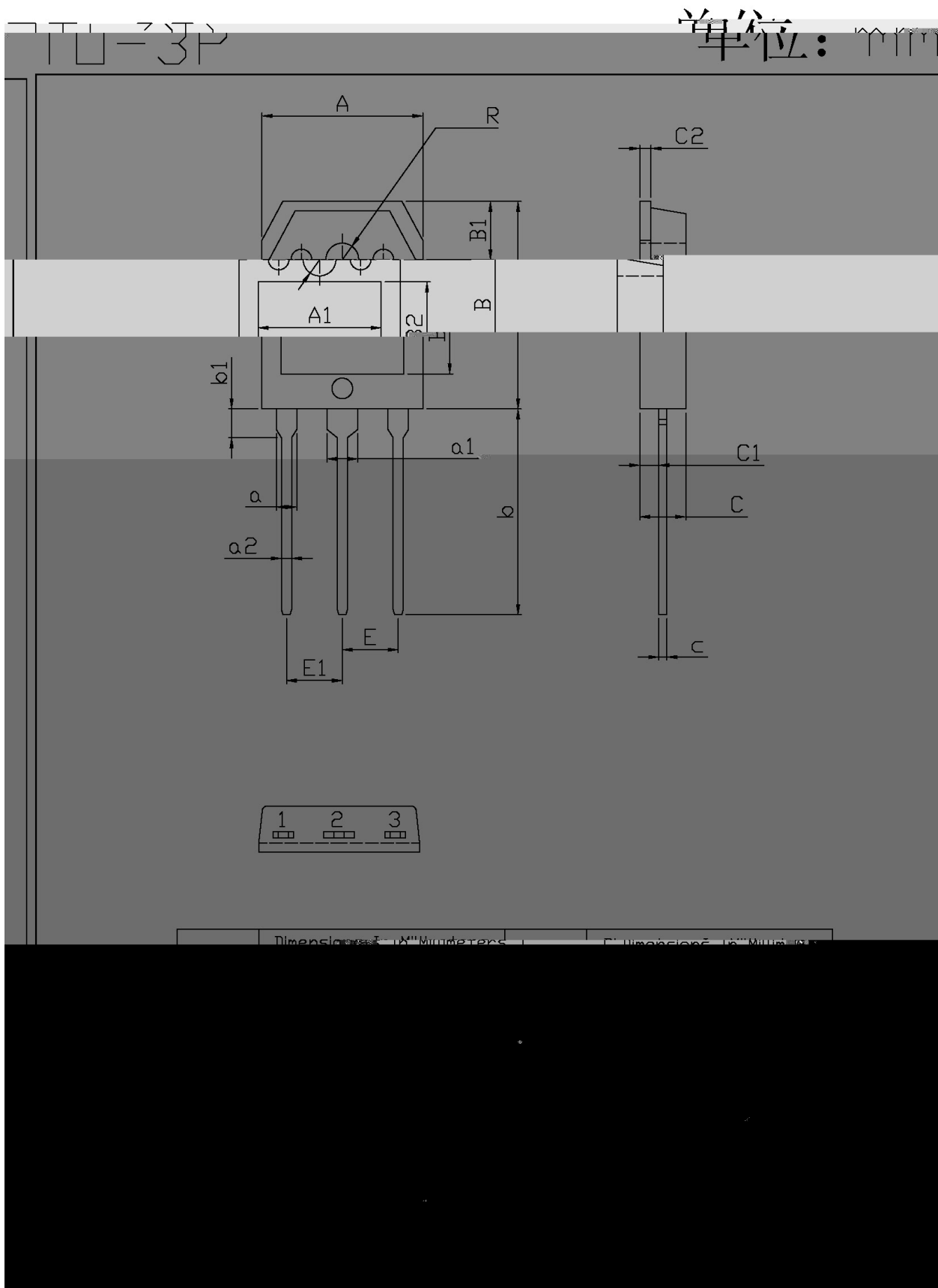
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	1200	V
Collector to Emitter Voltage	V_{CEO}	800	V
Emitter to Base Voltage	V_{EBO}	7	V
Collector Current - Continuous	I_C	10	A
Peak Collector Current	I_{CP}	20	A
Base Current	I_B	4	A
Base Current Peak	I_{BP}	8	A
Collector Power Dissipation	$P_{C(TC=25^\circ)}$	150	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	
Thermal Resistance, Junction to Case	$R_{th(j-c)}$	0.83	/W

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=0.1mA$ $I_E=0$	1200			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=0.2A$ $I_B=0$	800			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=0.1mA$ $I_C=0$	7			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=1200V$ $I_E=0$			100	μA
Collector Cut-Off Current	I_{CEO}	$V_{CE}=800V$ $I_B=0$			100	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=7V$ $I_C=0$			100	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5V$ $I_C=5A$	8		60	
	$h_{FE(2)}$	$V_{CE}=5V$ $I_C=1mA$	5			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=5A$ $I_B=1A$			1	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=5A$ $I_B=1A$			1.5	V
Transition Frequency	f_T	$V_{CE}=10V$ $I_C=1A$		8		MHz
Storage Time	t_S	UI9600 $I_C=0.5A$	1		9	μs

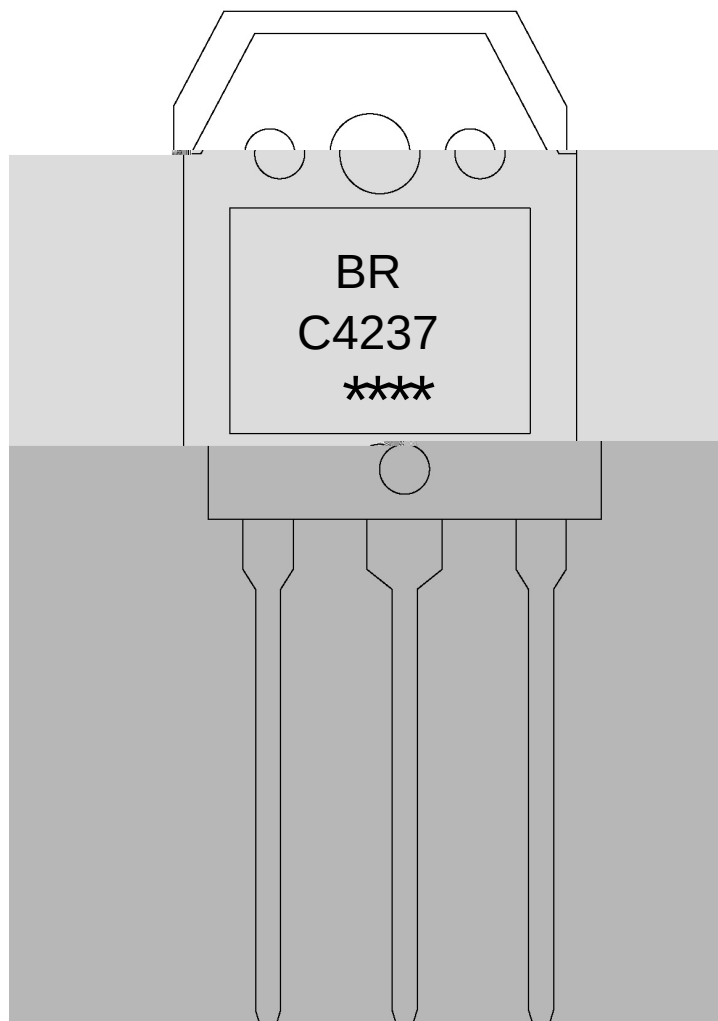
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR:

C4237

Note:

BR: Company Code.

C4237: Product Type.

****: Lot No. Code, code change with Lot No.

