/ Descriptions

TO-92 NPN Silicon NPN transistor in a TO-92 Plastic Package.

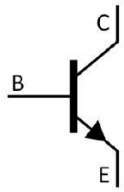
/ Features

Low Saturation Voltage.

/ Applications

Voltage Regulator.

/ Equivalent Circuit



/ Pinning

PIN1 Collector PIN 2 Base PIN 3 Emitter

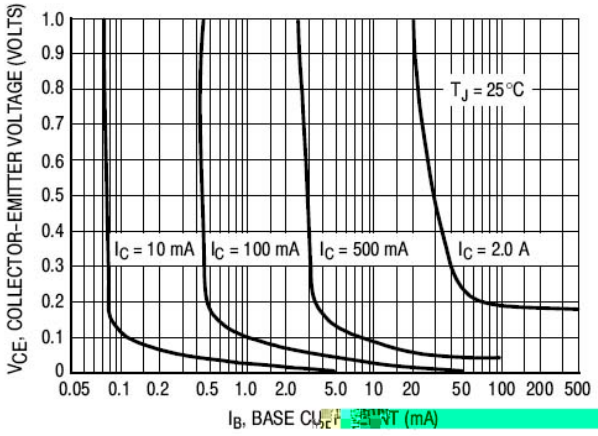
/ hFE Classifications & Marking

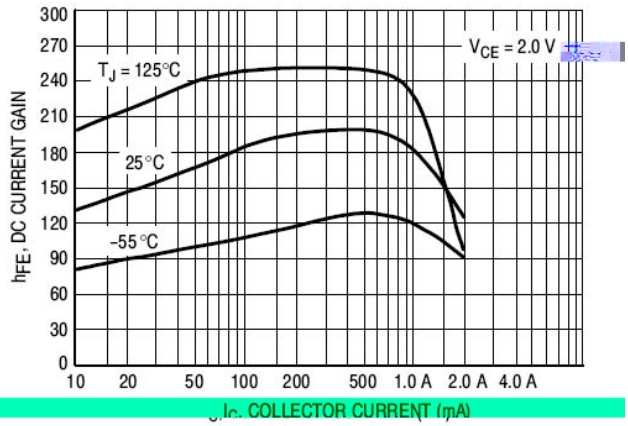
See Marking Instructions.

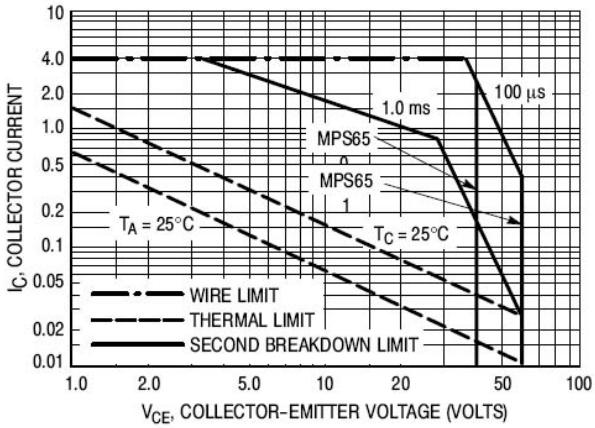
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	80	V
Collector to Emitter Voltage	V_{CEO}	60	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	1.0	A
Collector Current – Continuous(Pulse)	I_{CP}	2.0	A
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

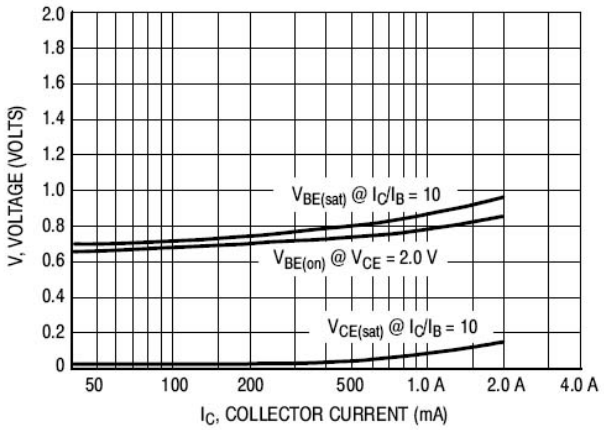
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=100 A I_E=0	80			V
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=10mA I_B=0	60			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_E=10 A I_C				

/ Electrical Characteristic Curve

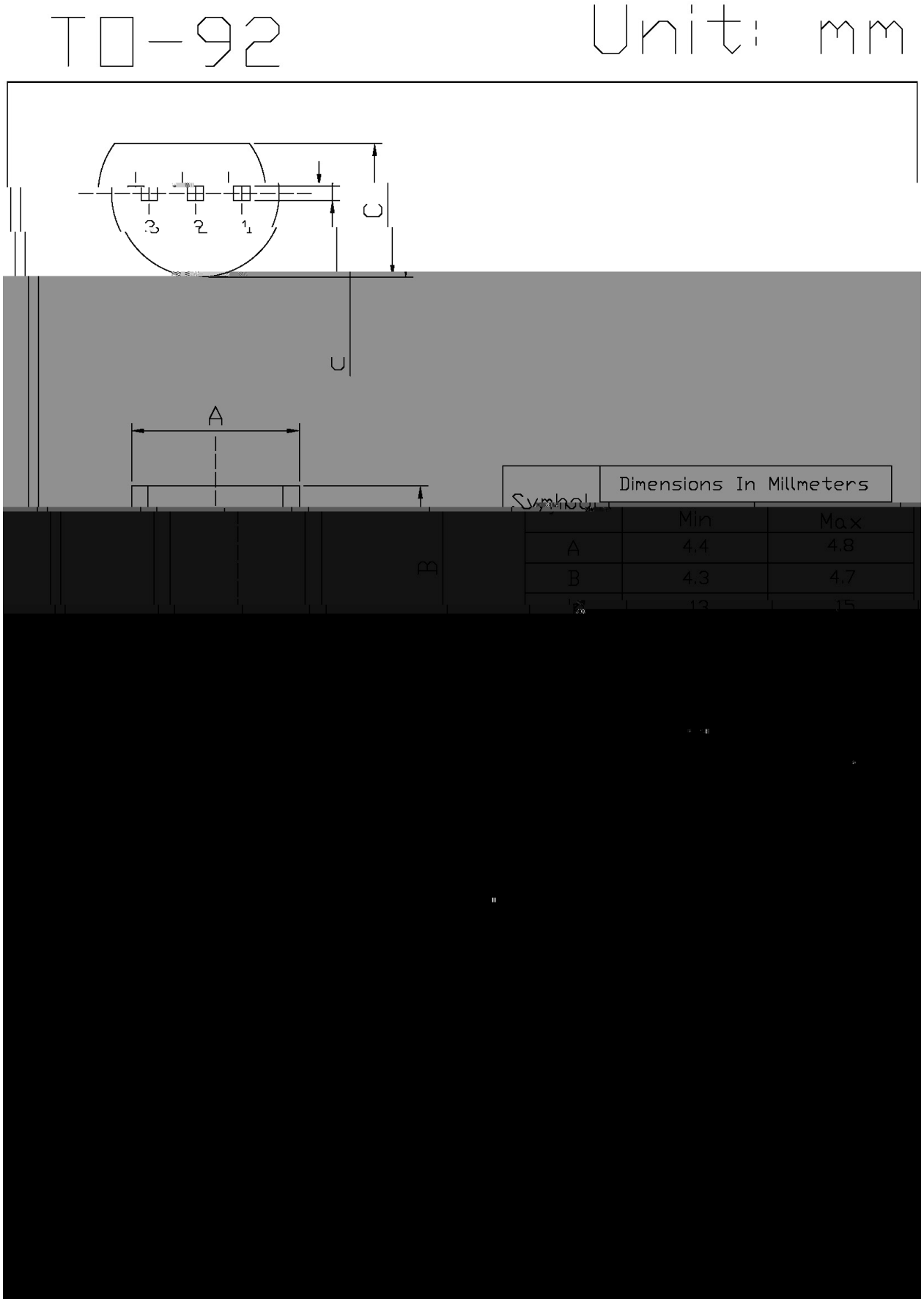




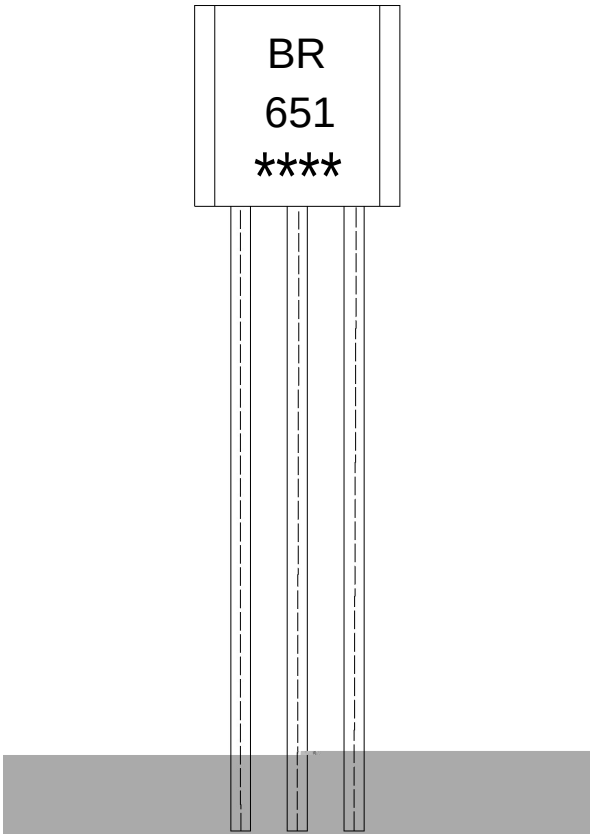




/ Package Dimensions



/ Marking Instructions



BR:

651

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Note:

BR:	Company Code.
651:	Product Type.
****:	Lot No. Code,code change with Lot No.

( ) / Temperature Profile for Dip Soldering(Pb-Free)

				Note:
1	25 150	60	90sec;	1.Preheating:25~150 , Time:60~90sec.
2	255±5		5±0.5sec;	2.Peak Temp.:255±5 , Duration:5±0.5sec.
3		2 10	/sec.	3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

270±5	10±1 sec.	Temp:270±5	Time:10±1 sec

/ Packaging SPEC.

/ BULK

Package Type	Units					Dimension		(unit mm3)
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-92	1,000	10	10,000	5	50,000	135×190	237×172×102	560×245×195
	1,000	10	10,000	10	100,000	135×190	237×172×102	560×245×375

/ AMMO

Package Type	Units			Dimension	(unit mm3)
	Units/tape /	Tape/Inner Box /	Rows/Inner Box		