

**Description**

Silicon NPN transistor in a TO-92LM Plastic Package

**Features**

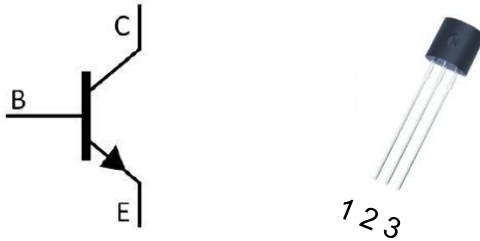
- Low saturation voltage
- High speed switching time
- Complementary to 2SA1020.

**Applications**

Power amplifier and switching applications.

Symbol	Parameter	Max	Unit
$V_{CE0}$	collector-emitter voltage	50	V
$I_c$	collector current (DC)	2.0	A

**Equivalent Circuit & Pinning**



PIN1: Base

PIN 2: Collector

PIN 3: Emitter

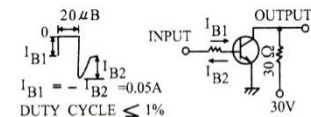
**hFE Classifications & Marking**

h <sub>FE</sub> Classifications Symbol	O	Y	G
h <sub>FE</sub> Range	70~140	120~240	200-400

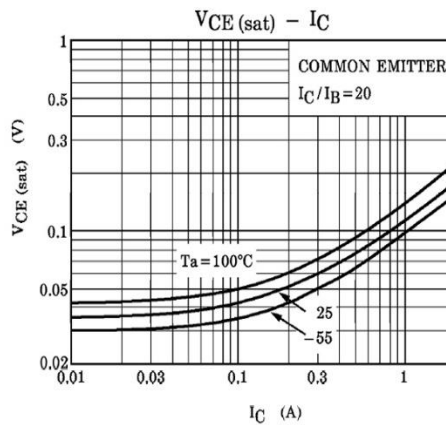
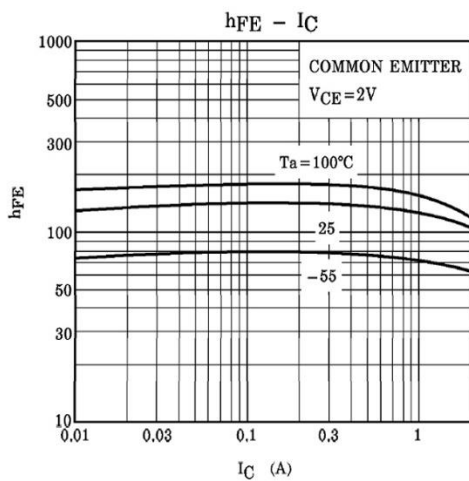
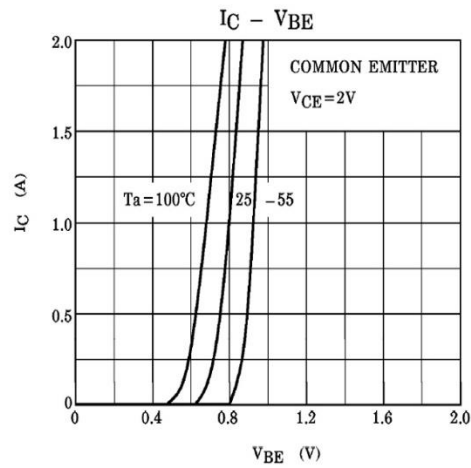
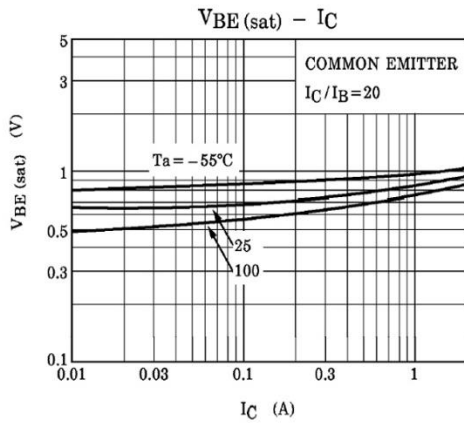
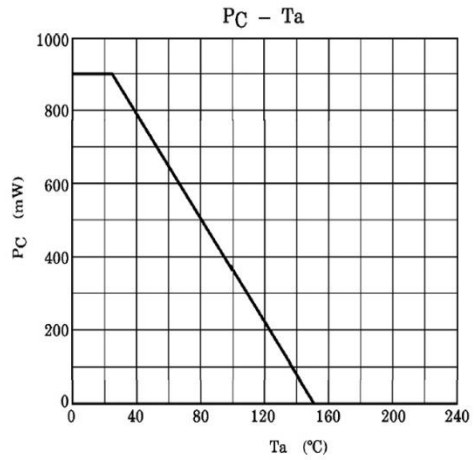
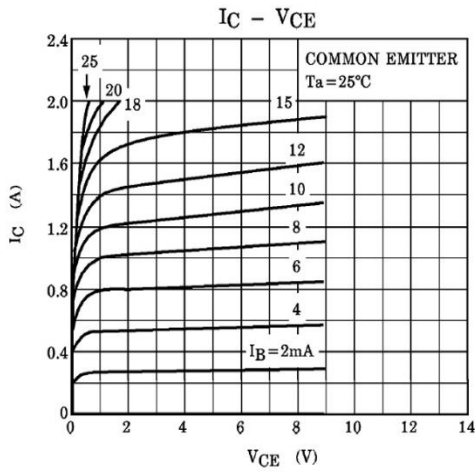
**Absolute Maximum Ratings(Ta=25°C)**

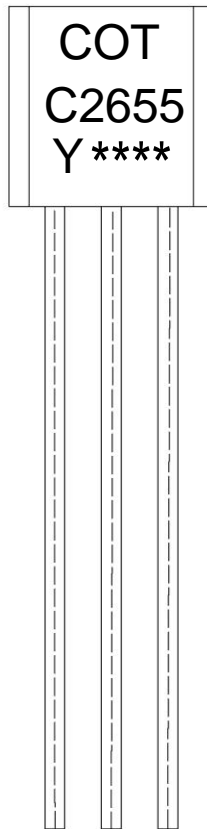
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CB0}$	50	V
Collector to Emitter Voltage	$V_{CEO}$	50	V
Emitter to Base Voltage	$V_{EBO}$	5.0	V
Collector Current (DC)	$I_C$	2.0	A
Collector Power Dissipation	$P_C$	900	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55~150	°C

**Electrical Characteristic (Ta=25°C)**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	$V_{CEO}$	$I_C=10mA$ $I_B=0$	50			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=50V$ $I_E=0$			1.0	$\mu A$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=5.0V$ $I_C=0$			1.0	$\mu A$
DC Current Gain	$h_{FE(1)}$	$V_{CE}=2.0V$ $I_C=0.5A$	70		400	
	$h_{FE(2)}$	$V_{CE}=2.0V$ $I_C=1.5A$	40			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1.0A$ $I_B=0.05A$			0.5	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=1.0A$ $I_B=0.05A$			1.2	V
Transition Frequency	$f_T$	$V_{CE}=2.0V$ $I_C=0.5A$	50	100		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10V$ $I_E=0$ $f=1.0MHz$		30	45	pF
Turn-On Time	$t_{on}$	(如图所示)		0.1		$\mu s$
Turn-Off Time	$t_f$			0.1		$\mu s$
Storage Time	$t_{stg}$	$I_{B1} = -I_{B2} = 0.05A$ DUTY CYCLE $\leq 1\%$ 开关时间测试电路		1.0		$\mu s$

Electrical Characteristic Curve



**Marking Instructions**


Note:

COT: Company Code.

C2655: Product Type.

Y: hFE Classifications Symbol.

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

h <sub>FE</sub> Classifications Symbol	O	Y	G
h <sub>FE</sub> Range	70~140	120~240	200-400

**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-92LM	1,000	8	8,000	5	40,000	135×190	237×172×102	560×245×195

**AMMO**

Package Type	Units					Dimension (unit: mm3)	
	Units/tape	Tape/Inner Box	Rows/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Inner Box	Outer Box
TO-92LM	2,500	1	100	10	25,000	328×230×42	小箱480×346×235 大箱547×407×268

Package Outline Dimensions

TO-92LM

Unit: mm

