

/ Descriptions

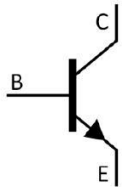
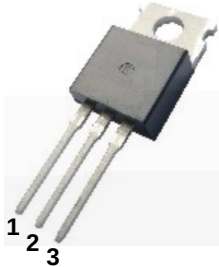
Silicon NPN transistor in a TO-220 Plastic Package.

/ Features

Complement to TIP42.

/ Applications

Medium power linear switching applications.

/ Equivalent Circuit**/ Pinning**

PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

See Marking Instructions.

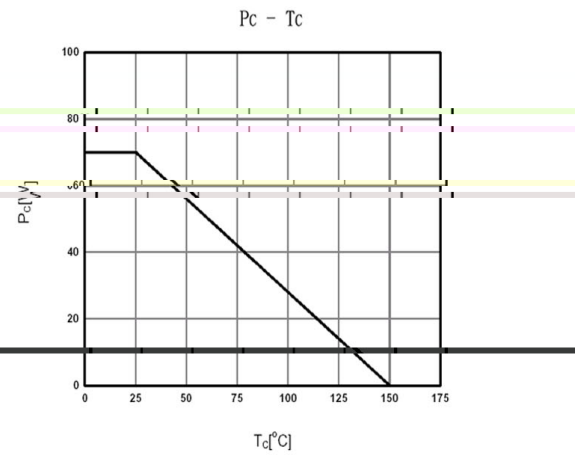
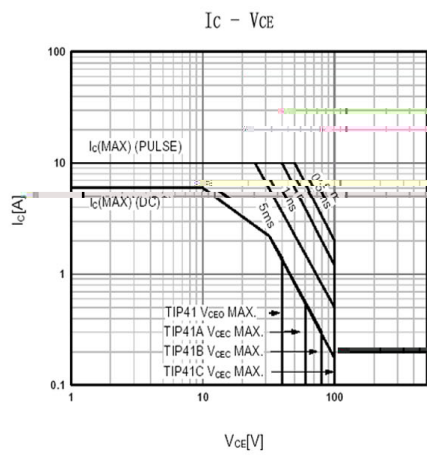
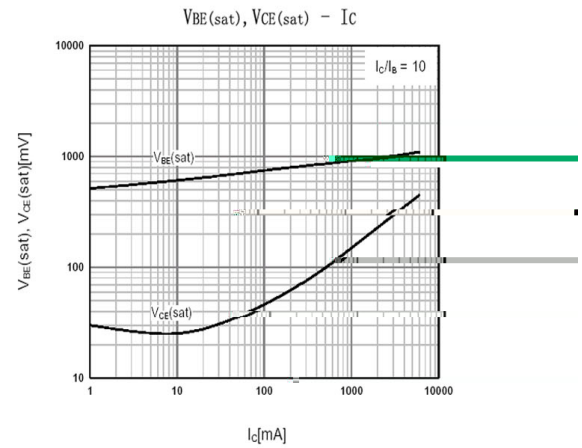
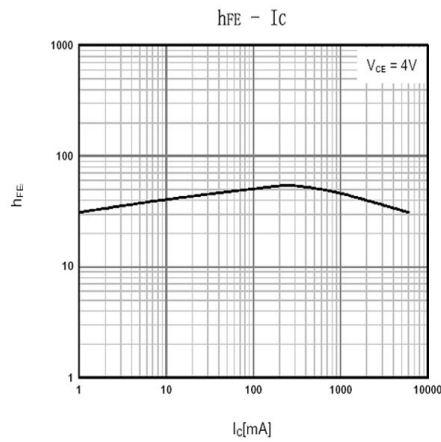
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating				Unit
		TIP41	TIP41A	TIP41B	TIP41C	
Collector to Base Voltage	V_{CBO}	40	60	80	100	V
Collector to Emitter Voltage	V_{CEO}	40	60	80	100	V
Emitter to Base Voltage	V_{EBO}	5				V
Collector Current - Continuous	I_C	6				A
Peak Collector Current	I_{CP}	10				A
Base Current - Continuous	I_B	2				A
Collector Power Dissipation	P_C	2				W
Collector Power Dissipation	P_C ($T_c=25$)	65				W
Junction Temperature	T_j	150				
Storage Temperature Range	T_{sag}	-55 150				

/ Electrical Characteristics(Ta=25)

Parameter	Symbol		Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	TIP41	$I_C=30mA$ $I_B=0$	40			V
		TIP41A		60			
		TIP41B		80			
		TIP41C		100			
Collector Cut-Off Current	I_{CEO}	TIP41 TIP41A	$V_{CE}=30V$ $I_B=0$			0.7	mA
		TIP41B TIP41C	$V_{CE}=60V$ $I_B=0$				
Collector Cut-Off Current	I_{CES}	TIP41	$V_{CE}=40V$ $V_{EB}=0$			400	A
		TIP41A	$V_{CE}=60V$ $V_{EB}=0$				
		TIP41B	$V_{CE}=80V$ $V_{EB}=0$				
		TIP41C	$V_{CE}=100V$ $V_{EB}=0$				
Emitter Cut-Off Current	I_{EBO}		$V_{EB}=5V$ $I_C=0$			1	mA
DC Current Gain	$h_{FE(1)}$		$V_{CE}=4V$ $I_C=3A$	15		75	
	$h_{FE(2)}$		$V_{CE}=4V$ $I_C=0.3A$	30			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$		$I_C=6A$ $I_B=0.6A$			1.5	V
Base to Emitter Voltage	V_{BE}		$I_C=6A$ $V_{CE}=4V$			2	V
Transition Frequency	f_T		$V_{CE}=10V$ $I_C=500mA$	3			MHz

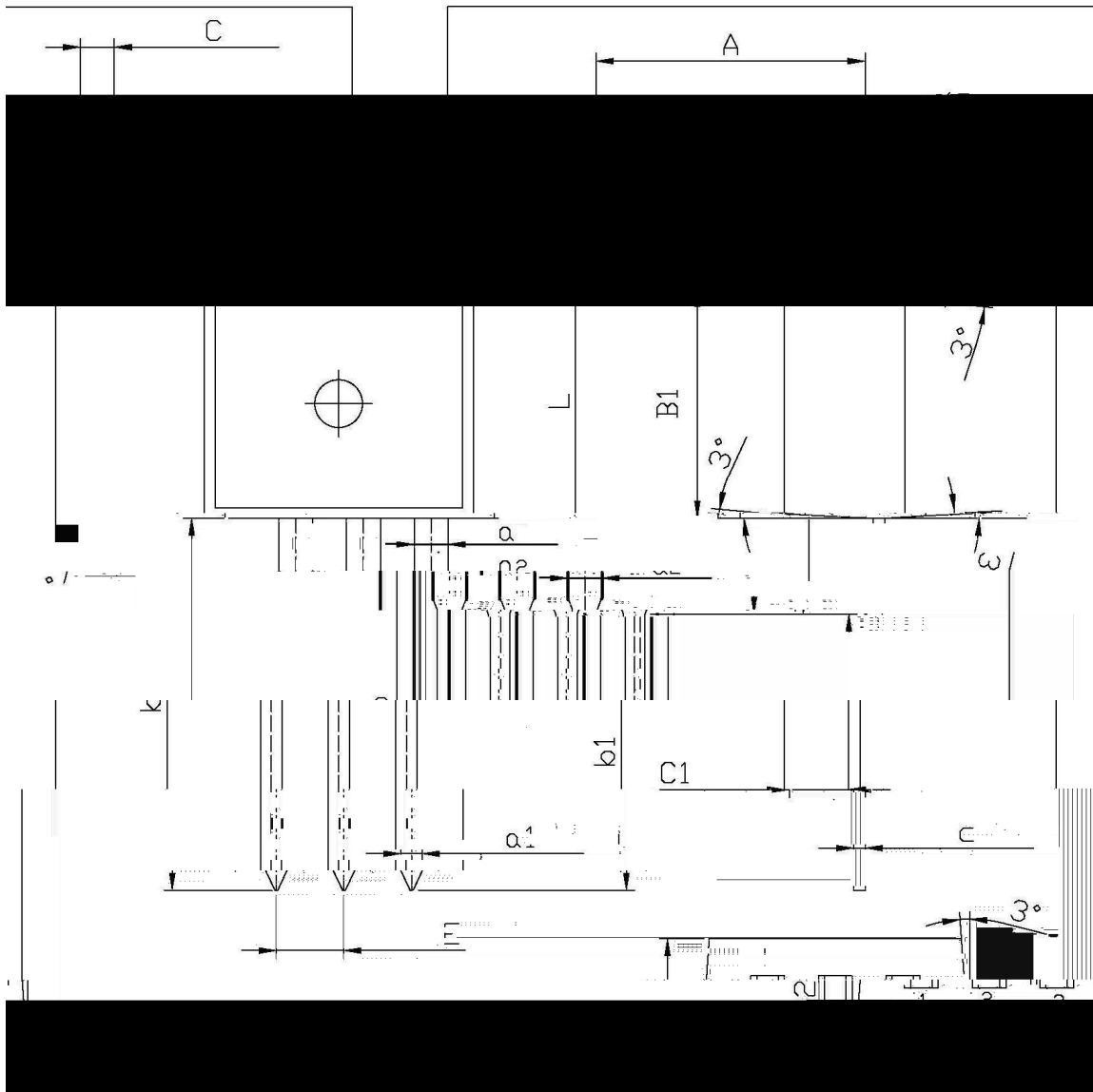
/ Electrical Characteristic Curve



/ Package Dimensions

单位: mm

T0-220

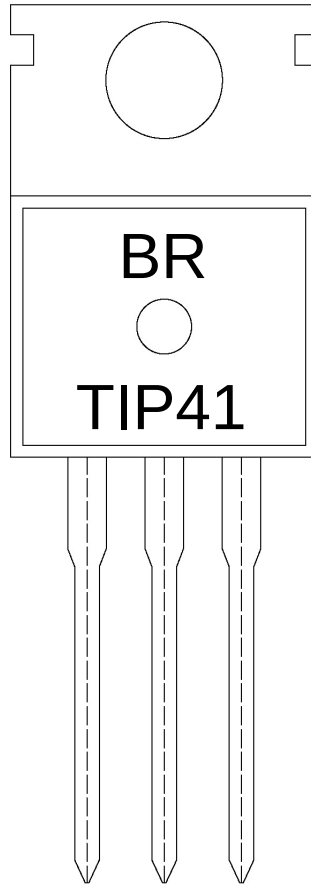


DIMENSIONS IN MILLIMETERS			DIMENSIONS IN MILLIMETERS		
Symbol	Min	Max	Symbol	Min	Max
A	9.8	16.2	C	1.2	1.4
R	3.56	3.64	B	6.3	6.7
B1	9.0	9.4	L	15.7	
a	0.1	0.2	a1	0.7	0.9
C	0.4	0.6	E	2.0	
C1	4.3	4.7	Q2	0.2	1.6
E	1.32				
Q4	2.74				
Q5	1.45				

TIP41

Rev. H Oct.-2018

/ Marking Instructions



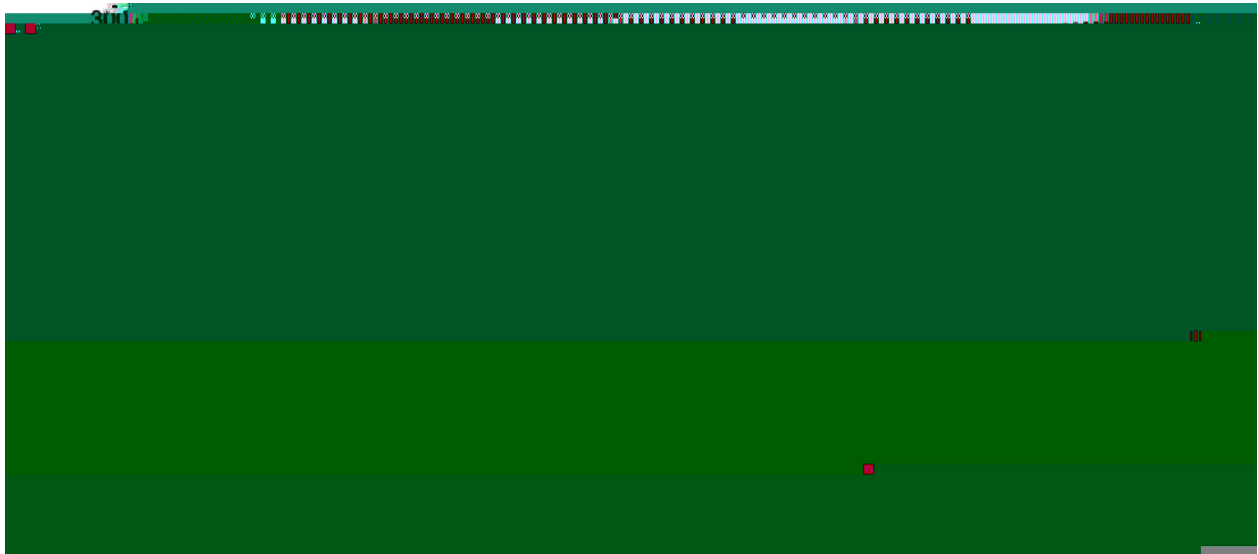
Note:

BR: Company Code

TIP41: Product Type.

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

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



Note:

- 1 25 150 60 90sec;
- 2 255 5 5 0.5sec;
- 3 2 10 /sec.

- 1.Preheating:25~150 , Time:60~90sec.
- 2.Peak Temp.:255 5 , Duration:5 0.5sec.
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 mm ³)		

/ TUBE

Package Type	Units					Dimension (unit mm ³)		

/ Notices