/ Descriptions

Silicon NPN transistor in a TO-220 Plastic Package.

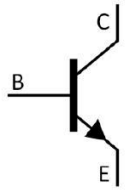
/ Features

Complement to TIP42.

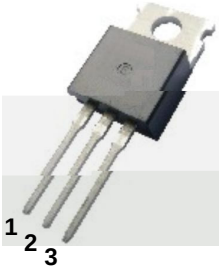
/ Applications

Medium power linear switching applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

See Marking Instructions.

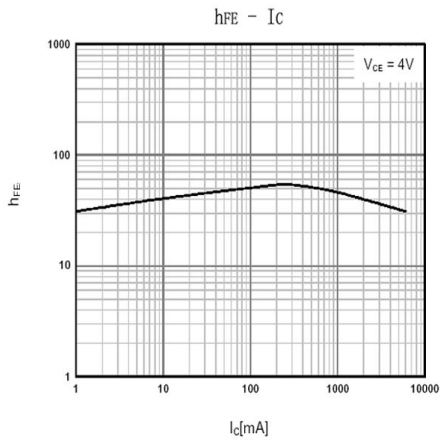
/ Absolute Maximum Ratings(Ta=25)

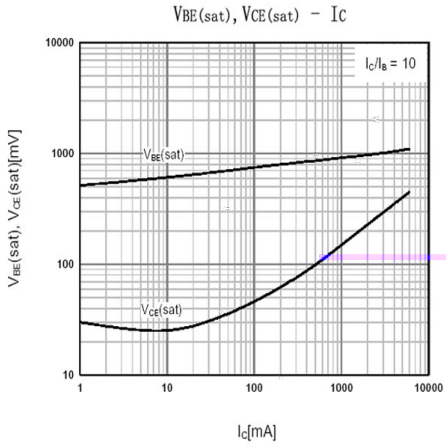
Parameter	Symbol	Rating				Unit
		TIP41	TIP41A	TIP41B	TIP41C	
Collector to Base Voltage	V_{CBO}	40	60	80	100	V
Collector to Emitter Voltage	V_{CEO}	40	60	80	100	V
Emitter to Base Voltage	V_{EBO}	5				V
Collector Current - Continuous	I_C	6				A
Peak Collector Current	I_{CP}	10				A
Base Current - Continuous	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				

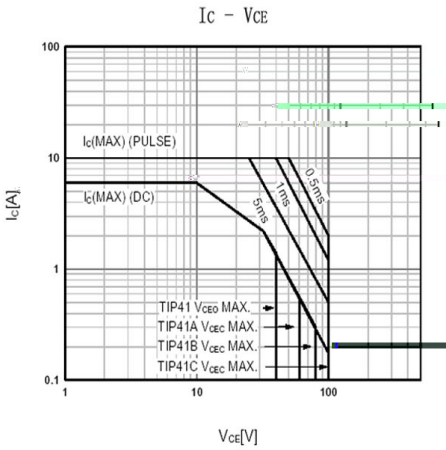
/ Electrical Characteristics(Ta=25)

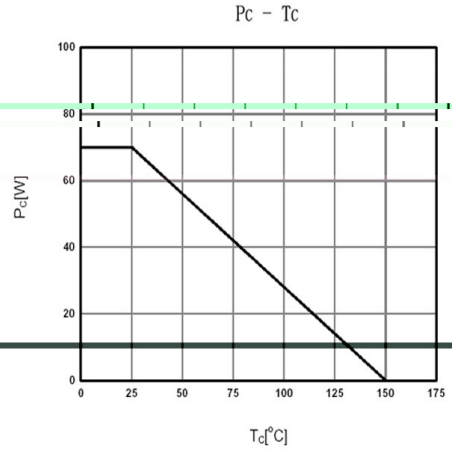
Parameter	Symbol		Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	TIP41	I_C=30mA I_B=0	40			V
		TIP41A		60			
		TIP41B		80			
		TIP41C		100			
Collector Cut-Off Current	I_{CEO}	TIP41 TIP41A	V_{CE}=30V I_B=0			0.7	mA
		TIP41B TIP41C	V_{CE}=60V I_B=0				
Collector Cut-Off 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



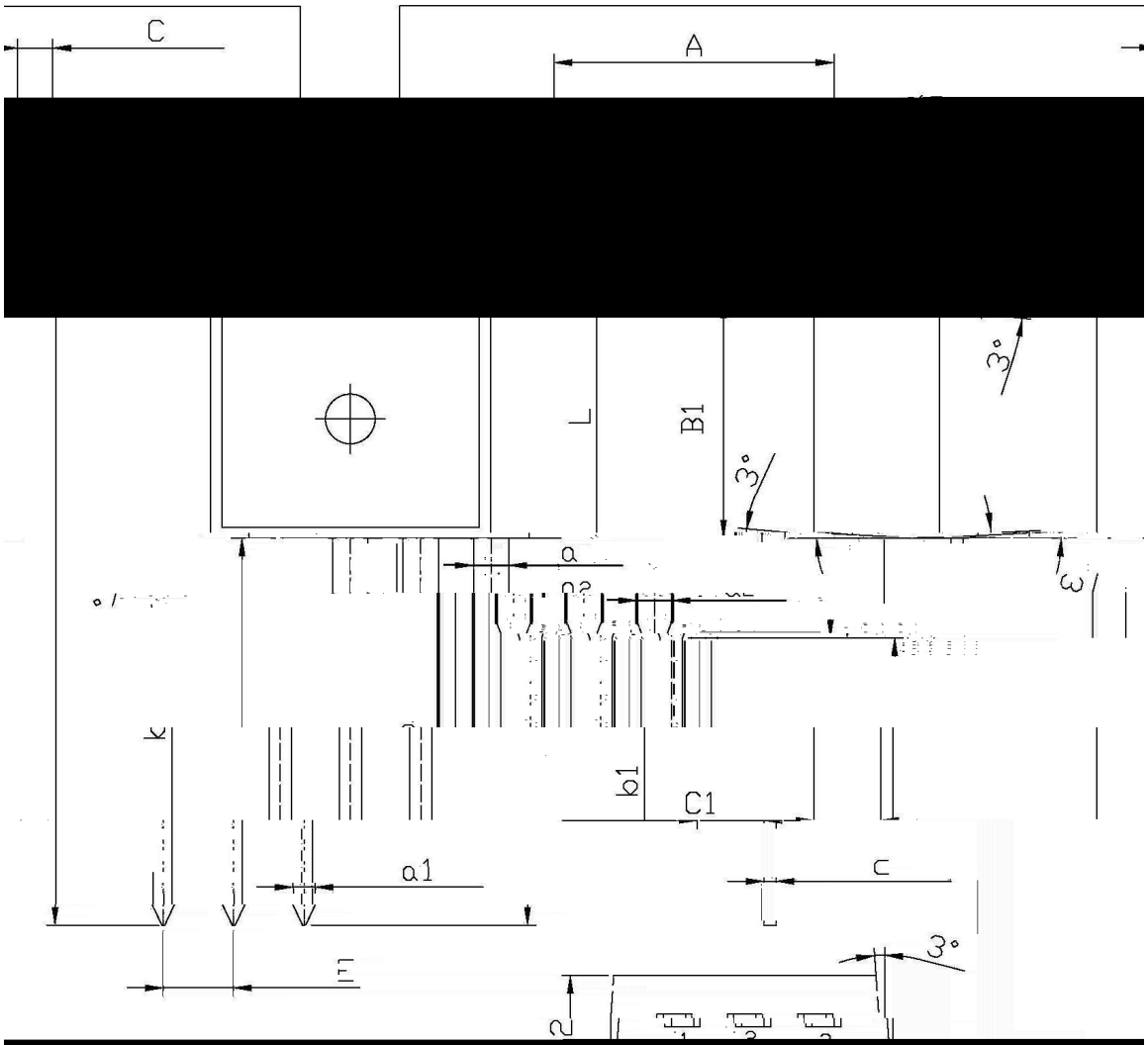






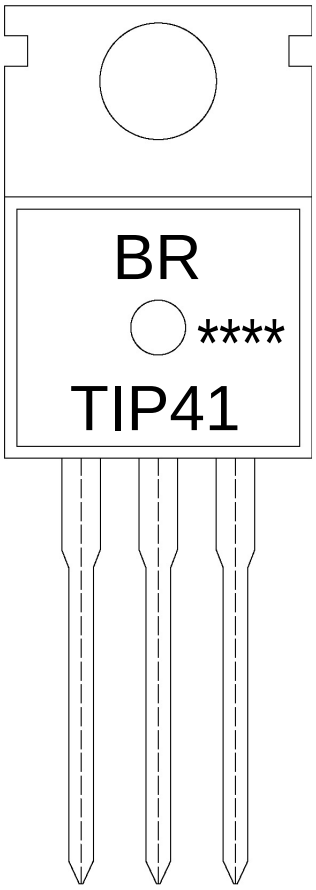
/ Package Dimensions

位：mm TO-220 单



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	9.8	10.2	C	1.2	
B	3.64		B1	9.0	9.4
	15.7	16.1			

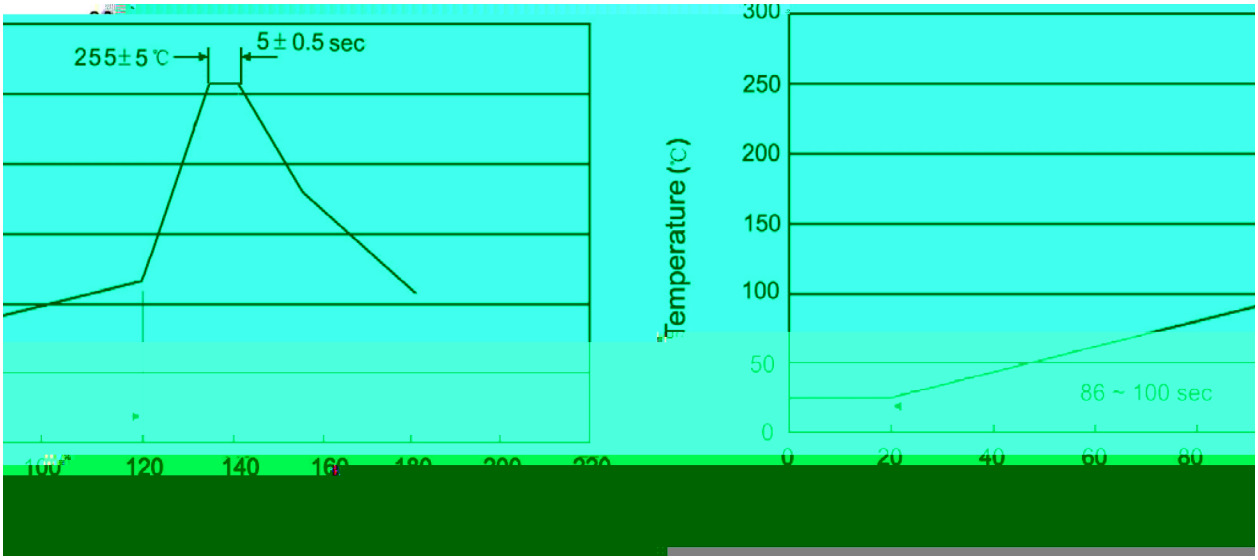
/ Marking Instructions



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;	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-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type	Units					Dimension		(unit mm³)
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

/ Notices