/ Descriptions

TO-126F PNP Silicon PNP transistor in a TO-126F Plastic Package.

/ Features

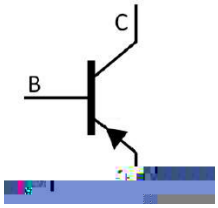
BD441

Complementary pair with BD441.

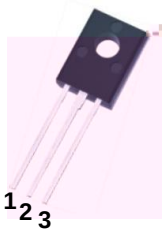
/ Applications

Medium power linear and switching applications.

/ Equivalent Circuit



/ Pinning



PIN1 Emitter PIN 2 Collector PIN 3 Base

/ h_{FE} Classifications & Marking

See Marking Instructions.

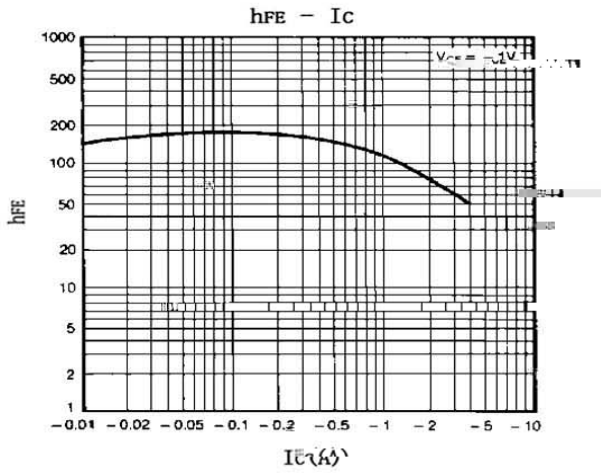
/ Absolute Maximum Ratings(Ta=25)

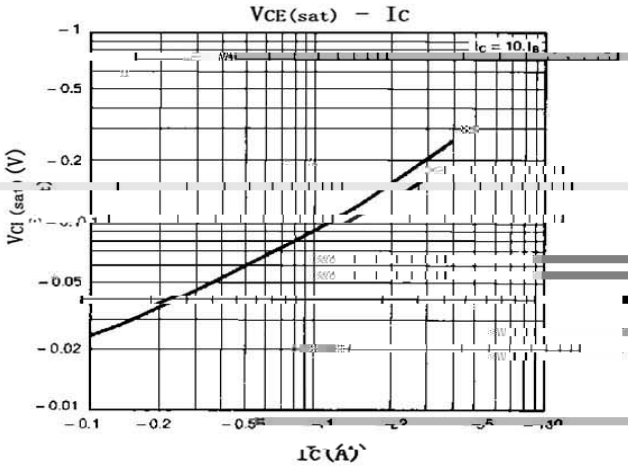
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-80	V
Collector to Emitter Voltage	V_{CES}	-80	V
Collector to Emitter Voltage	V_{CEO}	-80	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-4.0	A
Collector Current – Continuous(Pulse)	I_{CP}	-7.0	A
Base Current - Continuous	I_B	-1.0	A
Collector Power Dissipation	P_C(Tc=25)	36	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

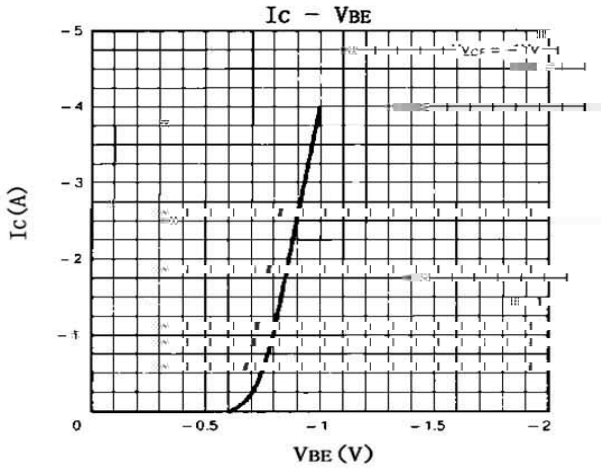
/ Electrical Characteristics(Ta=25)

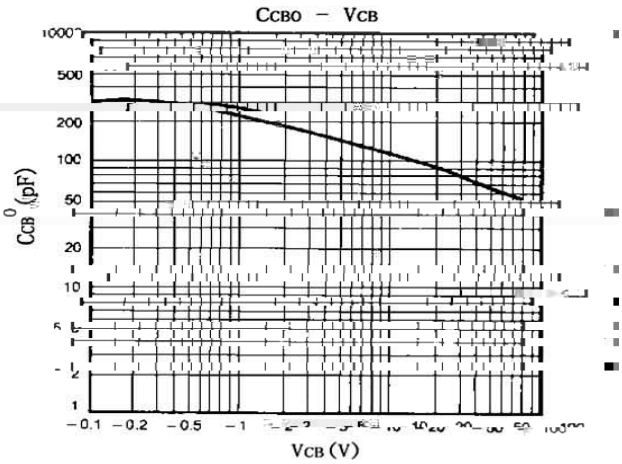
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=-100mA I_B=0	-80			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=-80V I_E=0			-100	μA
Collector Cut-Off Current	I_{CEO}	V_{CE}=-80V I_B=0			-100	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-5.0V I_C=0			-1.0	mA
DC Current Gain	$h_{FE(1)}$	V_{CE}=-1.0V I_C=-500mA	40	140	475	
	$h_{FE(2)}$	V_{CE}=-5.0V I_C=-10mA	15	140		
	$h_{FE(3)}$	V_{CE}=-1.0V I_C=-2A	15			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-2.0A I_B=-0.2A			-0.8	V
Base to Emitter Voltage	$V_{BE(1)}$	V_{CE}=-5.0V I_C=-10mA		-0.58		V
	$V_{BE(2)}$	V_{CE}=-1.0V I_C=-2.0A			-1.5	V
Transition Frequency	f_T	V_{CE}=-1.0V I_C=-250mA	3.0			MHz

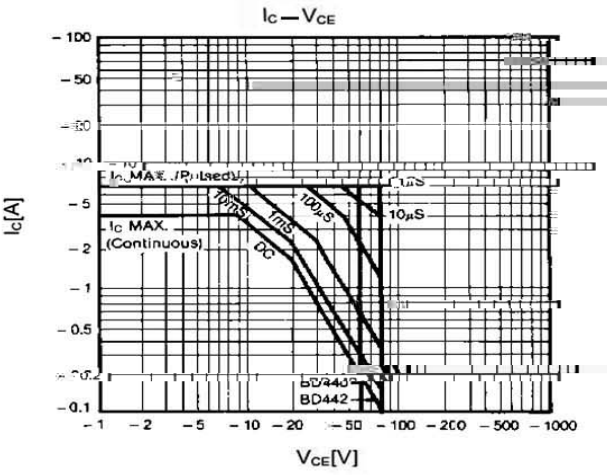
/ Electrical Characteristic Curve

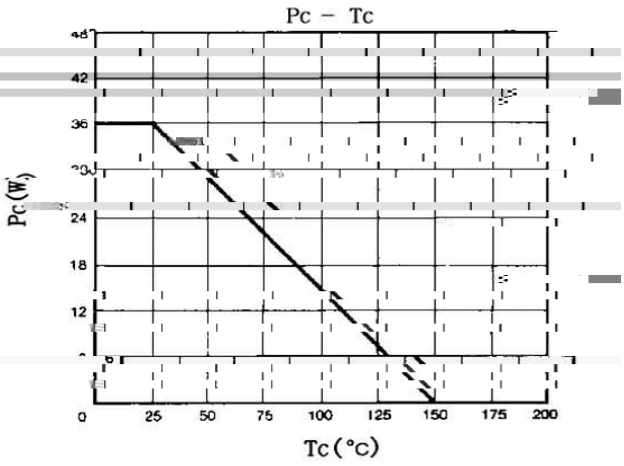




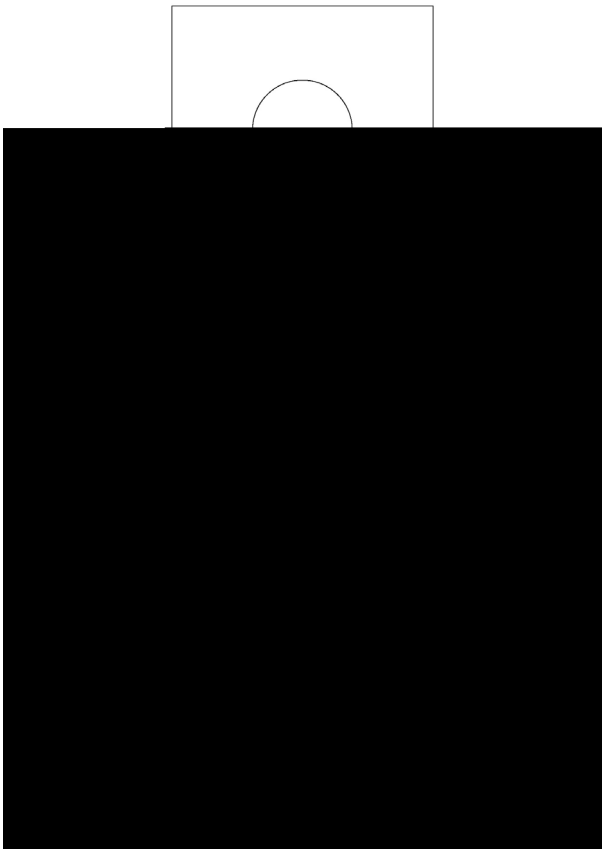








/ Marking Instructions



BR

BD442

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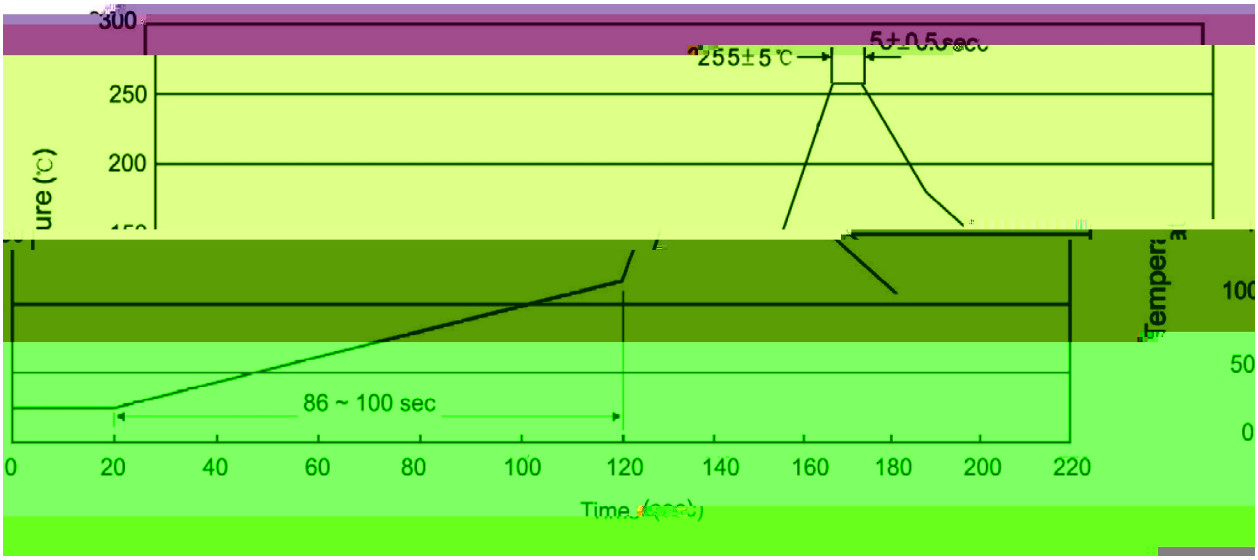
Note:

BR:	Company Code
BD442:	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 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm^3)		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-126/F	500	6	3,000	5	15,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type 封装形式	Units 包装数量	Dimension 包装尺寸 (unit: mm^3)