

BD233

Rev.E Mar.-2016

/ Descriptions

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

/ Features

BD234
Complementary pair with BD234.

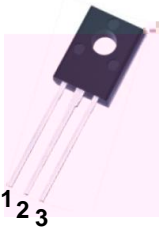
/ Applications

Medium power linear and switching applications.

/ Equivalent Circuit



/ Pinning



PIN1 Emitter PIN 2 Collector PIN 3 Base

/ h_{FE} Classifications & Marking

See Marking Instructions

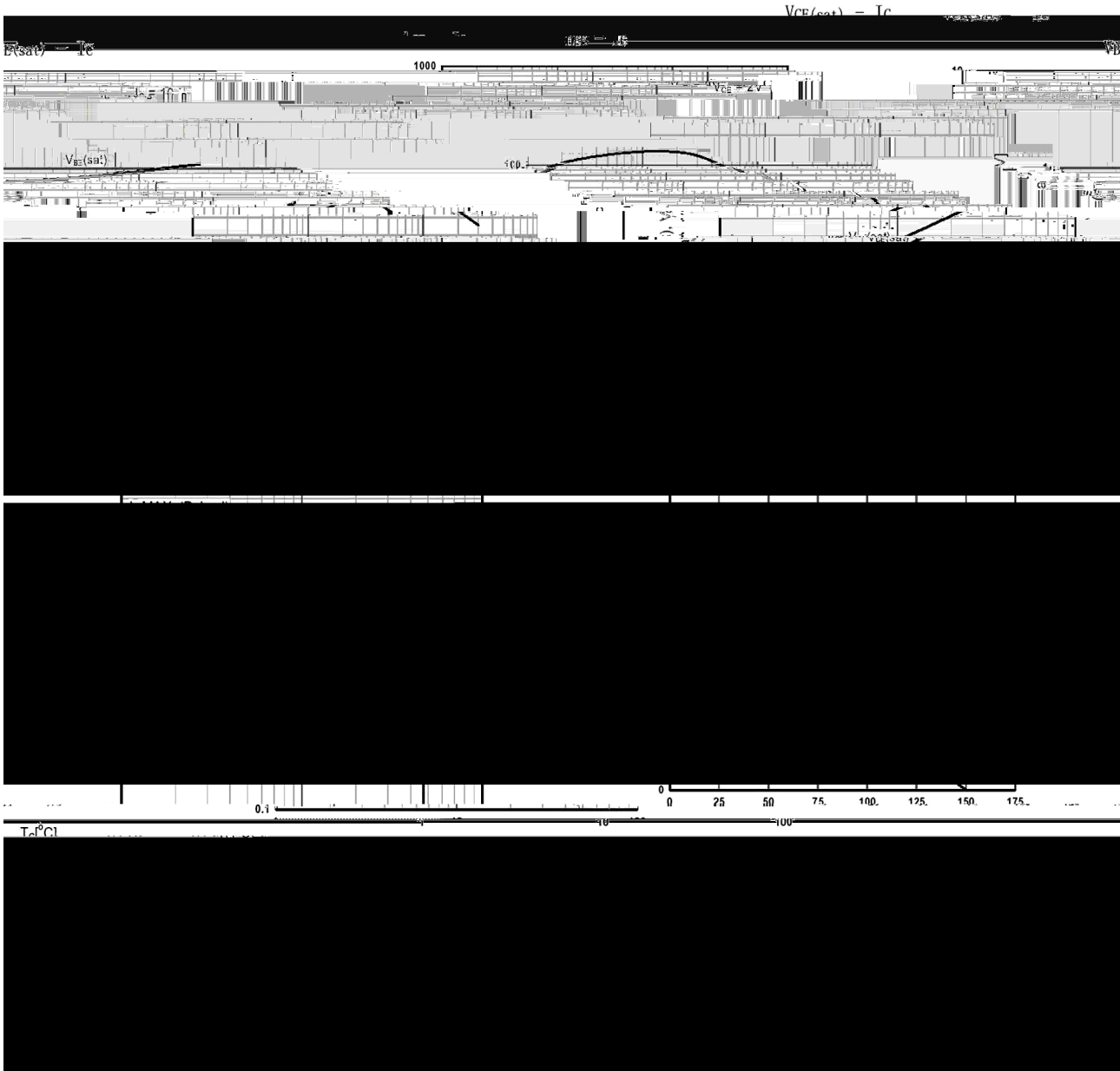
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	45	V
Collector to Emitter Voltage	V_{CEO}	45	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	2.0	A
Collector Current – Continuous(Pulse)	I_{CP}	6.0	A
Collector Power Dissipation	P_C	1.0	W
Collector Power Dissipation	$P_C(T_c=25)$	25	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}	$I_C=100mA$ $I_B=0$	45			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=45V$ $I_E=0$			100	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$			1.0	mA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=2.0V$ $I_C=150mA$	40		400	
	$h_{FE(2)}$	$V_{CE}=2.0V$ $I_C=1.0A$	25			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1.0A$ $I_B=0.1A$			0.6	V
Base to Emitter Voltage	V_{BE}	$V_{CE}=2.0V$ $I_C=1.0A$			1.3	V
Transition Frequency	f_T	$V_{CE}=10V$ $I_C=250mA$	3.0			MHz

/ Electrical Characteristic Curve



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DATA SHEET

/ Marking Instructions



BR

BD233

Note:

BR: Company Code

BD233: 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(

1.Preheating:25~150 , Time:60~90sec.