

2N6125

Rev.H Oct.-2018



DATA SHEET

/ Descriptions

TO-220 PNP Silicon PNP transistor in a TO-220 Plastic Package.

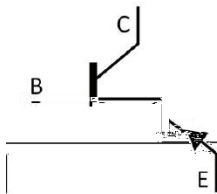
/ Features

2N6122
Complement to 2N6122.

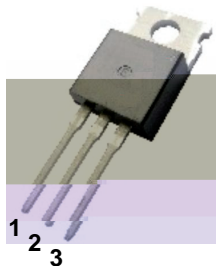
/ Applications

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
Collector to Base Voltage	V_{CBO}	-60	V
Collector to Emitter Voltage	V_{CEO}	-60	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-4.0	A
Peak Collector Current	I_{CM}	-7.0	A
Base Current - Continuous	I_B	-1.0	A
Collector Power Dissipation	$P_C(T_C=25)$	40	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

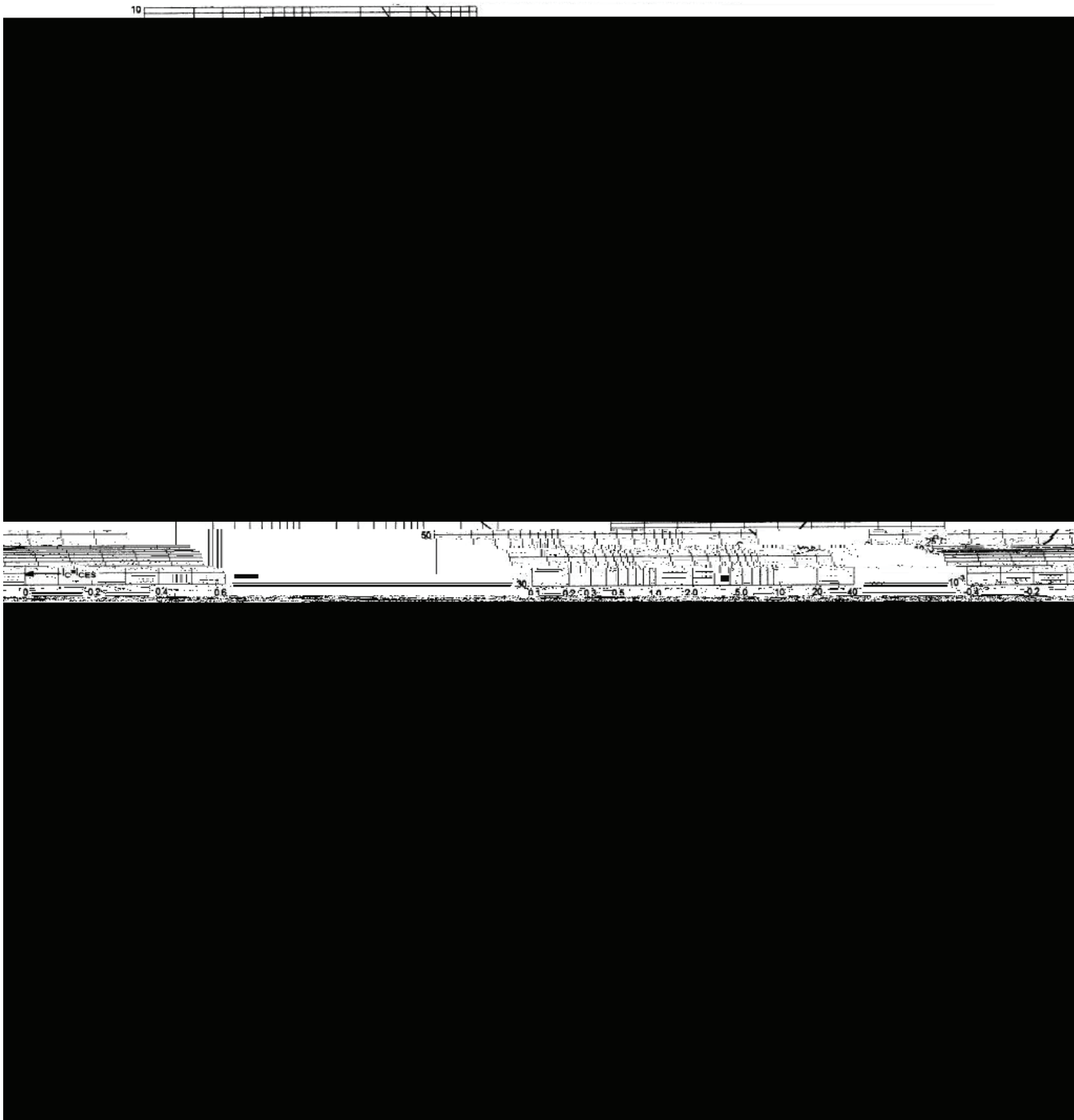
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage*	* V_{CEO}	$I_C=-100mA$ $I_B=0$	-60			V
Collector to Emitter Breakdown Voltage	V_{CBO}	$I_C=-1mA$ $I_E=0$	-60			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-1mA$ $I_C=0$	-5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-60V$ $I_E=0$			-0.1	mA
Collector Cut-Off Current	I_{CEO}	$V_{CE}=-60V$ $I_B=0$			-1.0	mA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-5.0V$ $I_C=0$			-1.0	mA
DC Current Gain	* $h_{FE(1)}$	$V_{CE}=-2.0V$ $I_C=-1.5A$	25		100	
	* $h_{FE(2)}$	$V_{CE}=-2.0V$ $I_C=-4.0A$	10			
Collector to Emitter Saturation Voltage*	* $V_{CE(sat)}$	$I_C=-1.5A$ $I_B=0.15A$			-0.6	V
Collector to Emitter Saturation Voltage*	* $V_{CE(sat)}$	$I_C=-4.0A$ $I_B=-1.0A$			-1.4	V
Base to Emitter On Voltage*	* $V_{BE(on)}$	$I_C=-1.5A$ $V_{CE}=-2.0V$			-1.2	V
Transition Frequency	f_T	$I_C=-1.0A$ $V_{CE}=-4.0V$ $f=1.0MHz$	2.5			MHz

*Pulse test: pulse width 300 μ s; duty cycle 2%.

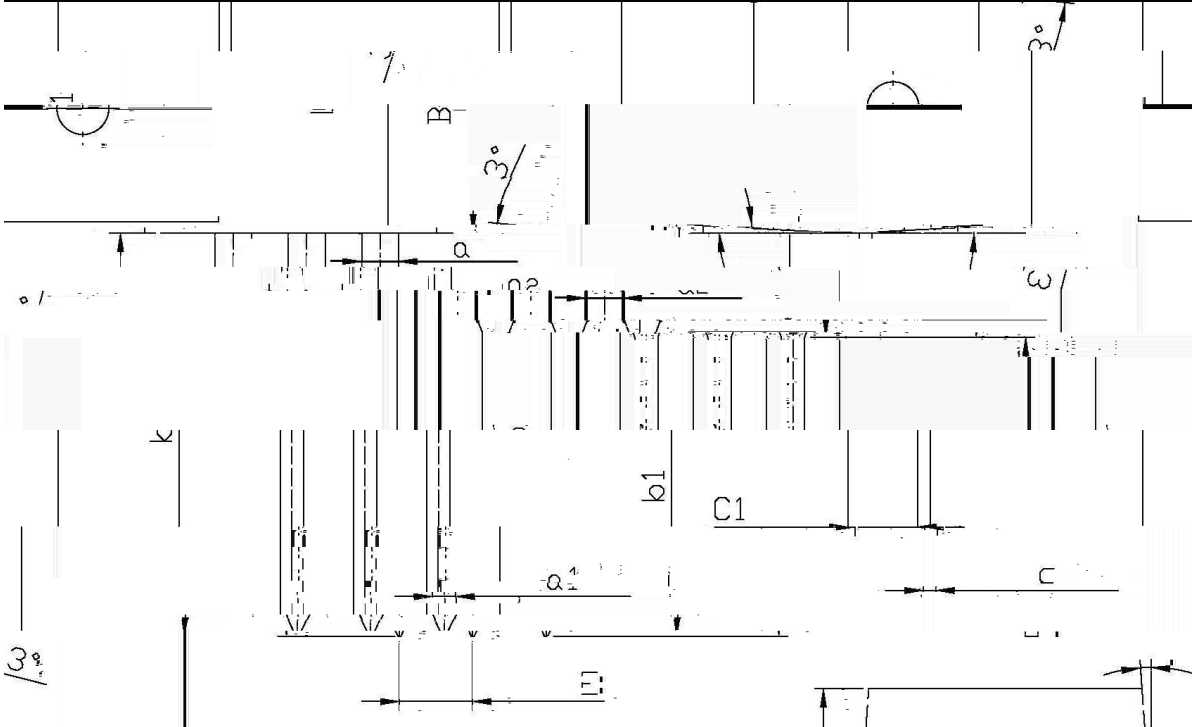
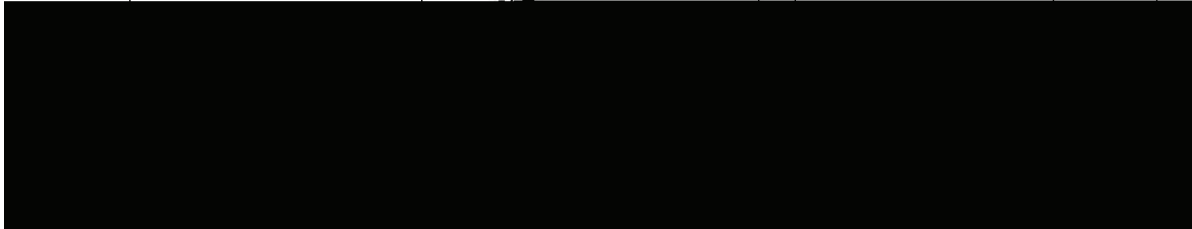
* 300 μ s 2%

/ Electrical Characteristic Curve

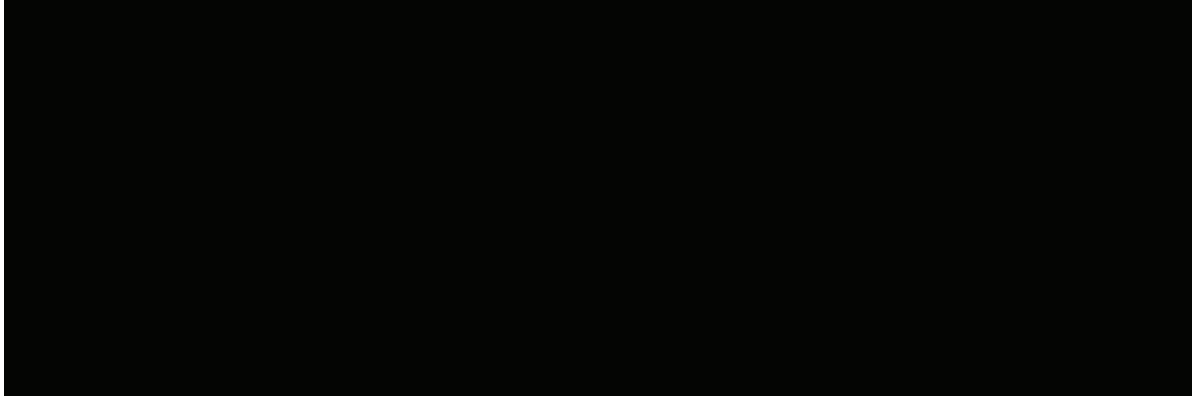
(SOA)



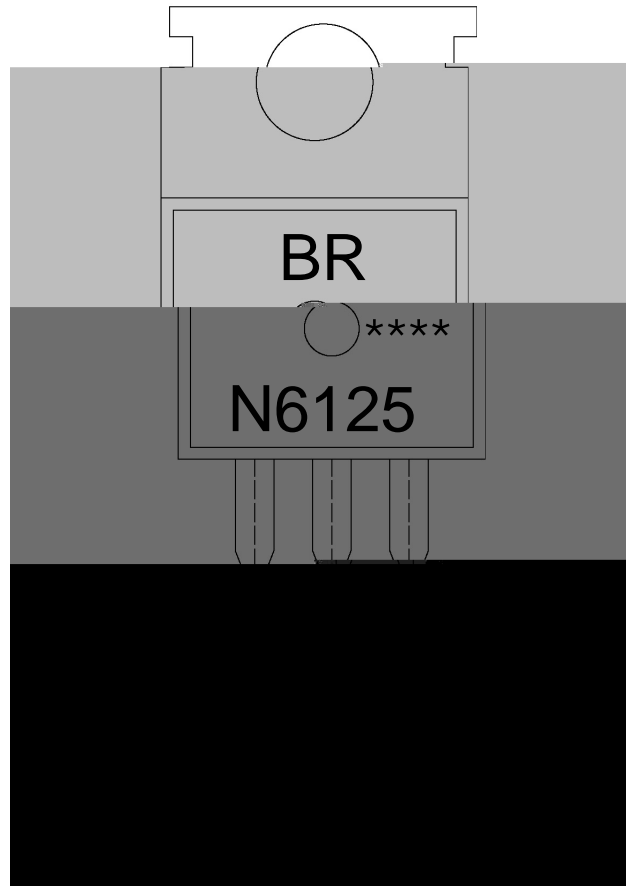
/ Package Dimensions



Dimensions in millimeter (mm) Dimensions in millimeter (mm)



/ Marking Instructions



BR

N6125

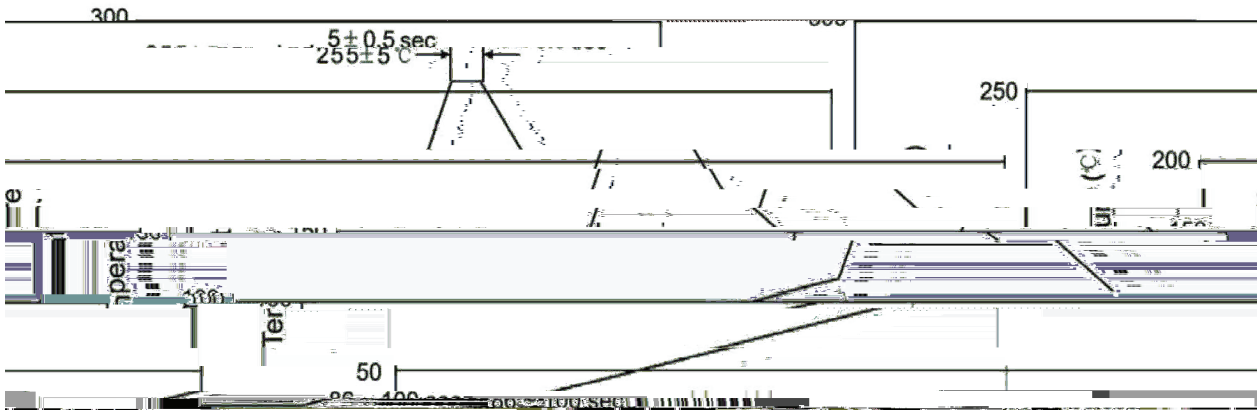
Note:

BR: Company Code

N6125: Product Type.

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

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



- | | |
|---|--|
| <p>1 25 150 60 90sec;</p> <p>2 255±5 5±0.5sec;</p> <p>3 2 10 /sec.</p> | <p>Note:</p> <p>1.Preheating:25~150 , Time:60~90sec.</p> <p>2.Peak Temp.:255±5 , Duration:5±0.5sec.</p> <p>3. Cooling Speed: 2~10 /sec.</p> |
|---|--|

/ 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)		
	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 mm ³)		
	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