

**BR3CG9414NA**  
Rev.C Aug.-2019

SOT-223

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	-180	V
Collector to Emitter Voltage	$V_{CEO}$	-140	V
Emitter to Base Voltage	$V_{EBO}$	-7.0	V
Collector Current - Continuous	I		

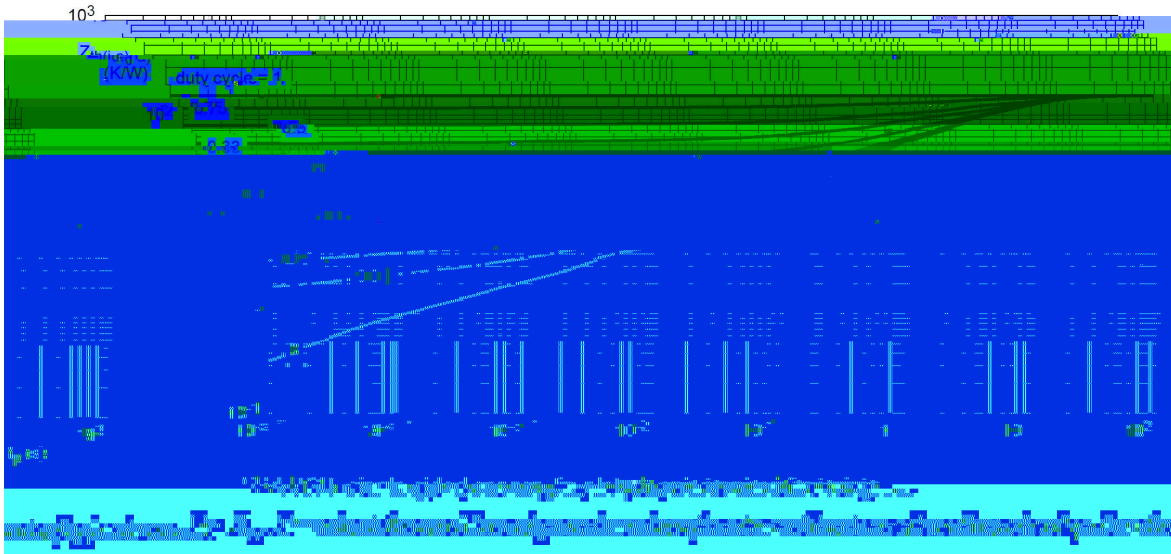
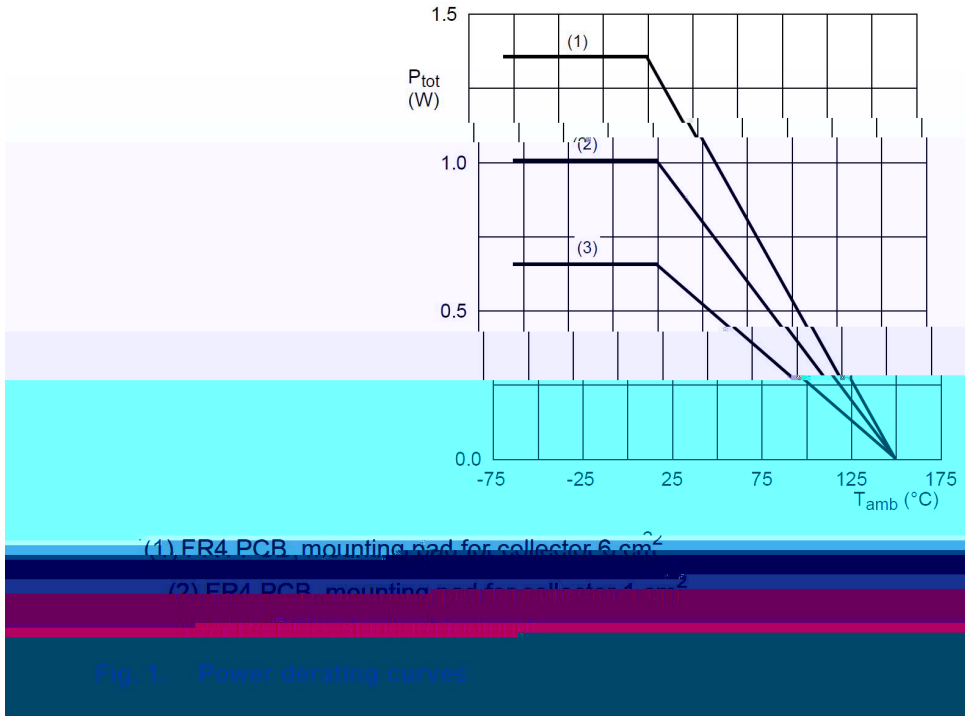
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	$I_{CBO}$	$V_{CB} = -150\text{ V}$ $I_E = 0\text{ A}$ $T_{amb} = 25\text{ }^\circ\text{C}$			-100	nA
		$V_{CB} = -150\text{ V}$ $I_E = 0\text{ A}$ $T_j = 150\text{ }^\circ\text{C}$			-50	uA
Collector-emitter cut-off current	$I_{CES}$	$V_{CE} = -115\text{ V}$ $V_{BE} = 0\text{ V}$ $T_{amb} = 25\text{ }^\circ\text{C}$			-100	nA
Emitter-base cut-off current	$I_{EBO}$	$V_{EB} = -6\text{ V}$ $I_C = 0\text{ A}$ $T_{amb} = 25\text{ }^\circ\text{C}$			-100	nA
DC Current Gain	$h_{FE(1)}$	$V_{CE} = -5.0\text{ V}$ $I_C = -10\text{ mA}$ $T_{amb} = 25\text{ }^\circ\text{C}$	100	160		
	$h_{FE(2)}$	$V_{CE} = -5\text{ V}$ $I_C = -1\text{ A}$ tp 300 s 0.02 $T_{amb} = 25\text{ }^\circ\text{C}$	100	150	300	
	$h_{FE(3)}$	$V_{CE} = -5\text{ V}$ $I_C = -3\text{ A}$ tp 300 s 0.02 $T_{amb} = 25\text{ }^\circ\text{C}$	75	100		
	$h_{FE(4)}$	$V_{CE} = -5\text{ V}$ $I_C = -4\text{ A}$ tp 300 s 0.02 $T_{amb} = 25\text{ }^\circ\text{C}$	35	50		

96.78 .47998 24.12 r(C)Tj102 TcTc( )Tj6 re7.1003 Tw( = 2 0 10.5 74.8

Collector to Emitter Saturation Voltage

$V_{CE(sat)}$

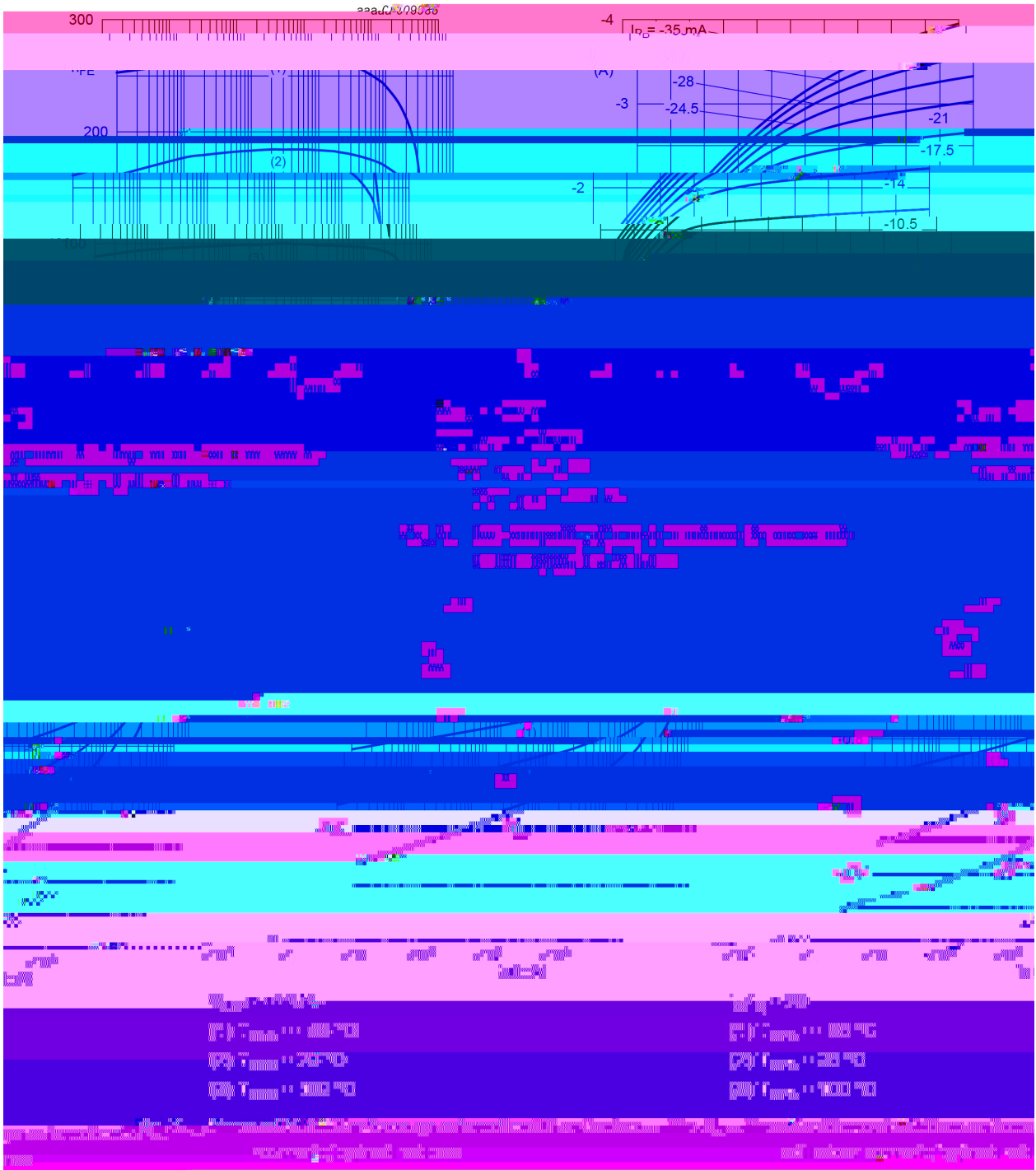
/ Electrical Characteristic Curve



/ Electrical Characteristic Curve



/ Electrical Characteristic Curve

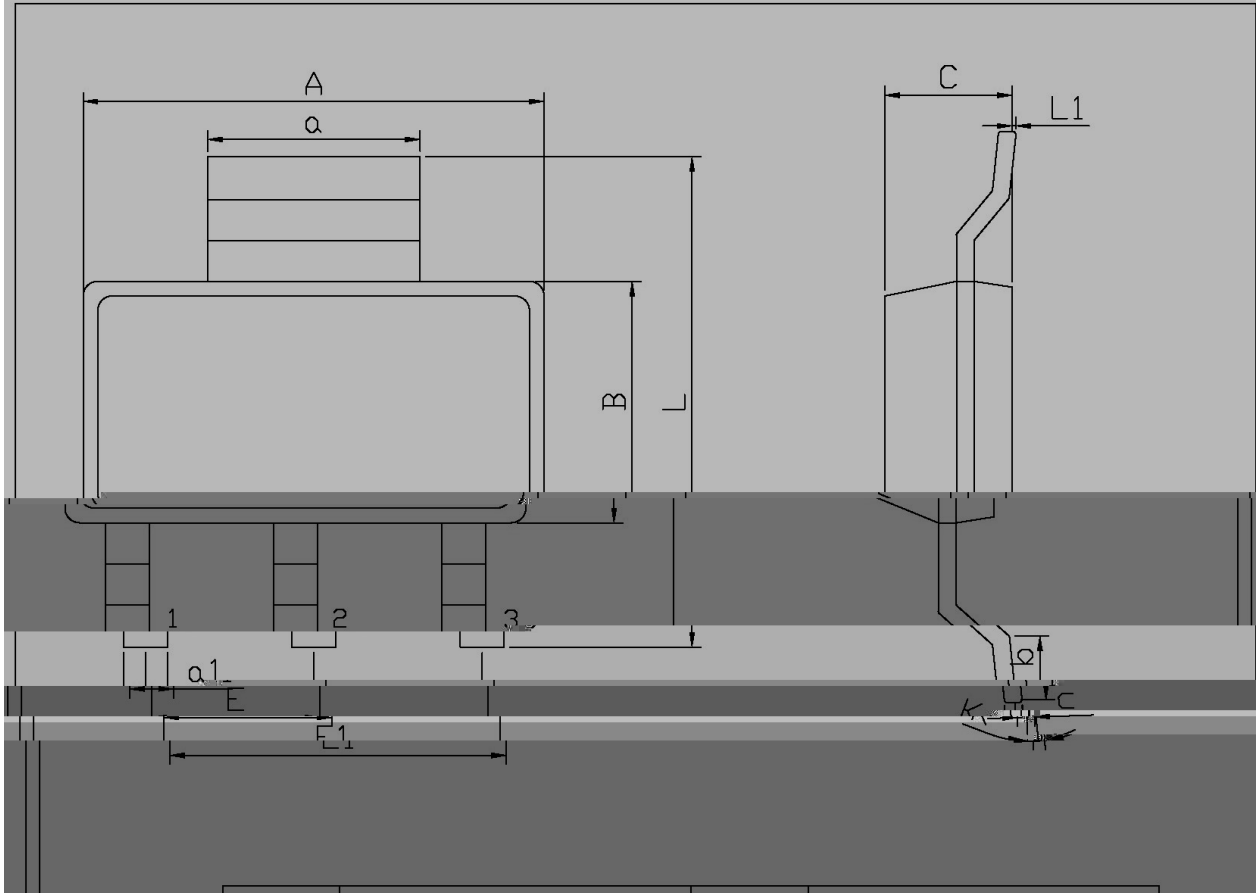


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/ Package Dimensions

SOT-223

单位: mm



Symbol	Dimensions In. Millimeter		Symbol	Dimensions In. Millimeter	
	Min	Max		Min	Max
A	6.30	6.70	C	1.80	Max
a	2.90	3.10	b	0.91	-
B	3.30	3.70	c	0.24	0.32
L	6.70	7.30	K	0°	10°

/ Marking Instructions



BR

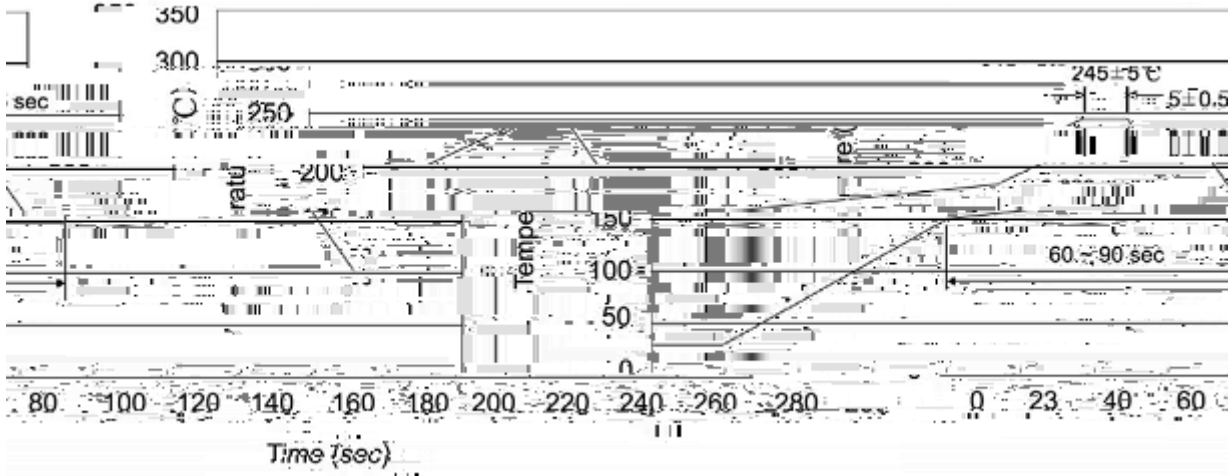
Note:

BR: Company Code.

9414: Product Type.

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

( ) / Temperature Profile for IR Reflow Soldering (Pb-Free)



Note:

- |   |     |     |    |          |   |
|---|-----|-----|----|----------|---|
| 1 | 25  | 150 | 60 | 90sec;   | 1.Preheating:25~150 , Time:60~90sec.    |
| 2 | 245 | 5   | 5  | 0.5sec;  | 2.Peak Temp.:245 5 , Duration:5 0.5sec. |
| 3 |     |     | 2  | 10 /sec. | 3. Cooling Speed: 2~10 /sec.            |

/ Resistance to Soldering Heat Test Conditions

260 5                      10 1 sec.                      Temp:260±5                      Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SOT-223	2,500	2	5000	5	25,000	13 ×12	340×340×50	385×257×392

/ Notices