

MPSA42G

Rev.E Mar.-2016

/ Descriptions

KF \$0) E GE Silicon NPN transistor in a TO-92 Plastic Package.

/ Features

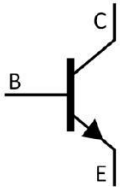
D GJ80) >

High voltage low saturation, low collector output capacitance, complementary pair with MPSA92G.HF Product.

/ Applications

High voltage control circuit.

/ Equivalent Circuit



/ Pinning



PIN1 Collector PIN 2 Base PIN 3 Emitter

/ hFE Classifications & Marking

See Marking Instructions.

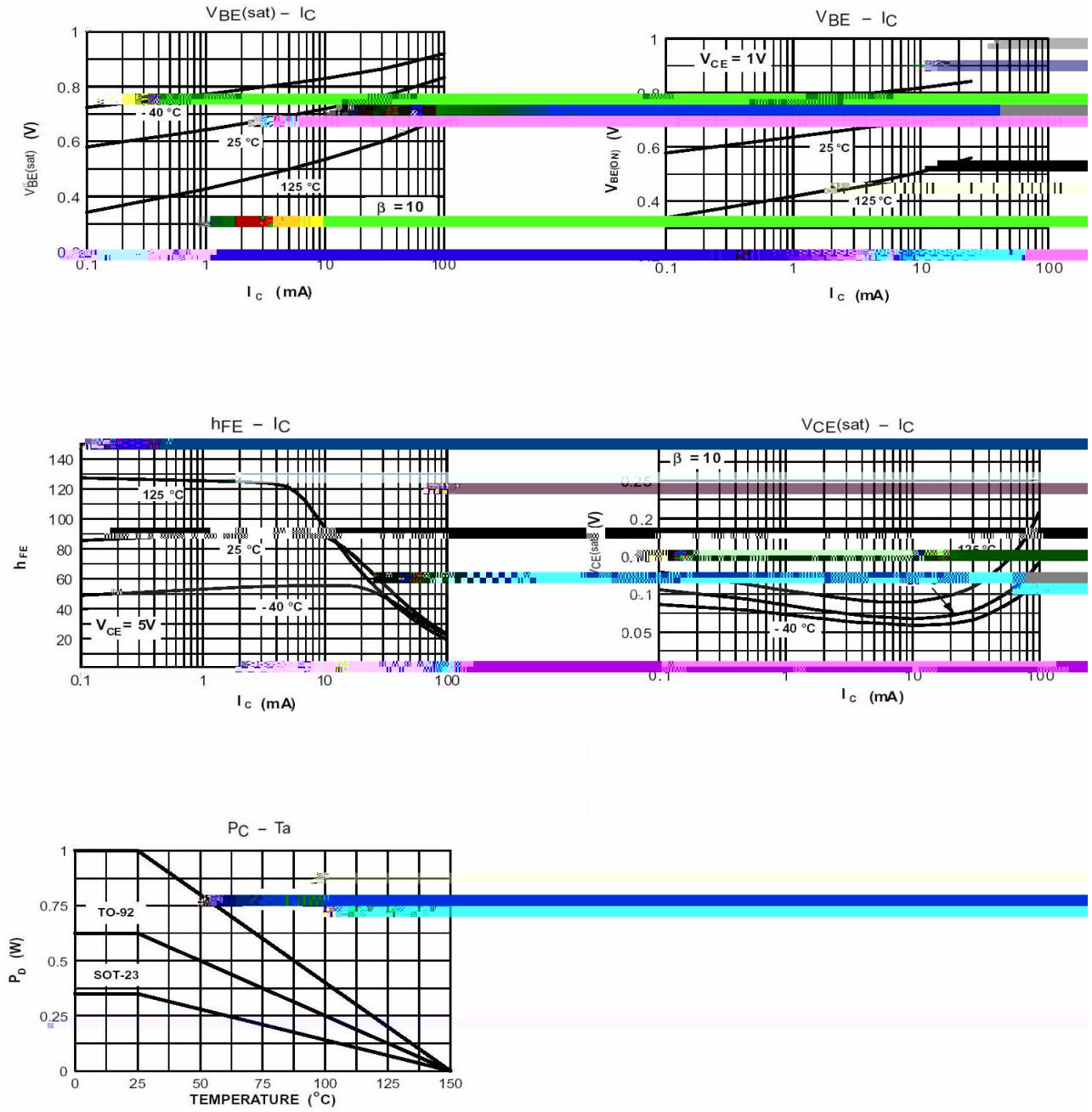
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	300	V
Collector to Emitter Voltage	V_{CEO}	300	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	500	mA
Collector Power Dissipation	P_C	625	mW
Collector Power Dissipation	$P_C(T_c=25)$	1.5	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_{CBO}	$I_C=100 A$ $I_E=0$	300			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0mA$ $I_B=0$	300			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=100 A$ $I_C=0$	6.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=200V$ $I_E=0$			0.1	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=6.0V$ $I_C=0$			0.1	A
DC Current Gain	$h_{FE(1)}$	$V_{CE}=10V$ $I_C=10mA$	40			
	$h_{FE(2)}$	$V_{CE}=10V$ $I_C=30mA$	40			
	$h_{FE(3)}$	$V_{CE}=10V$ $I_C=1.0mA$	25			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=20mA$ $I_B=2.0mA$			0.5	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=20mA$ $I_B=2.0mA$			0.9	V
Transition Frequency	f_T	$V_{CE}=20V$ $f=100MHz$ $I_C=10mA$	50			MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=20V$ $f=1.0MHz$ $I_E=0$			3.0	pF

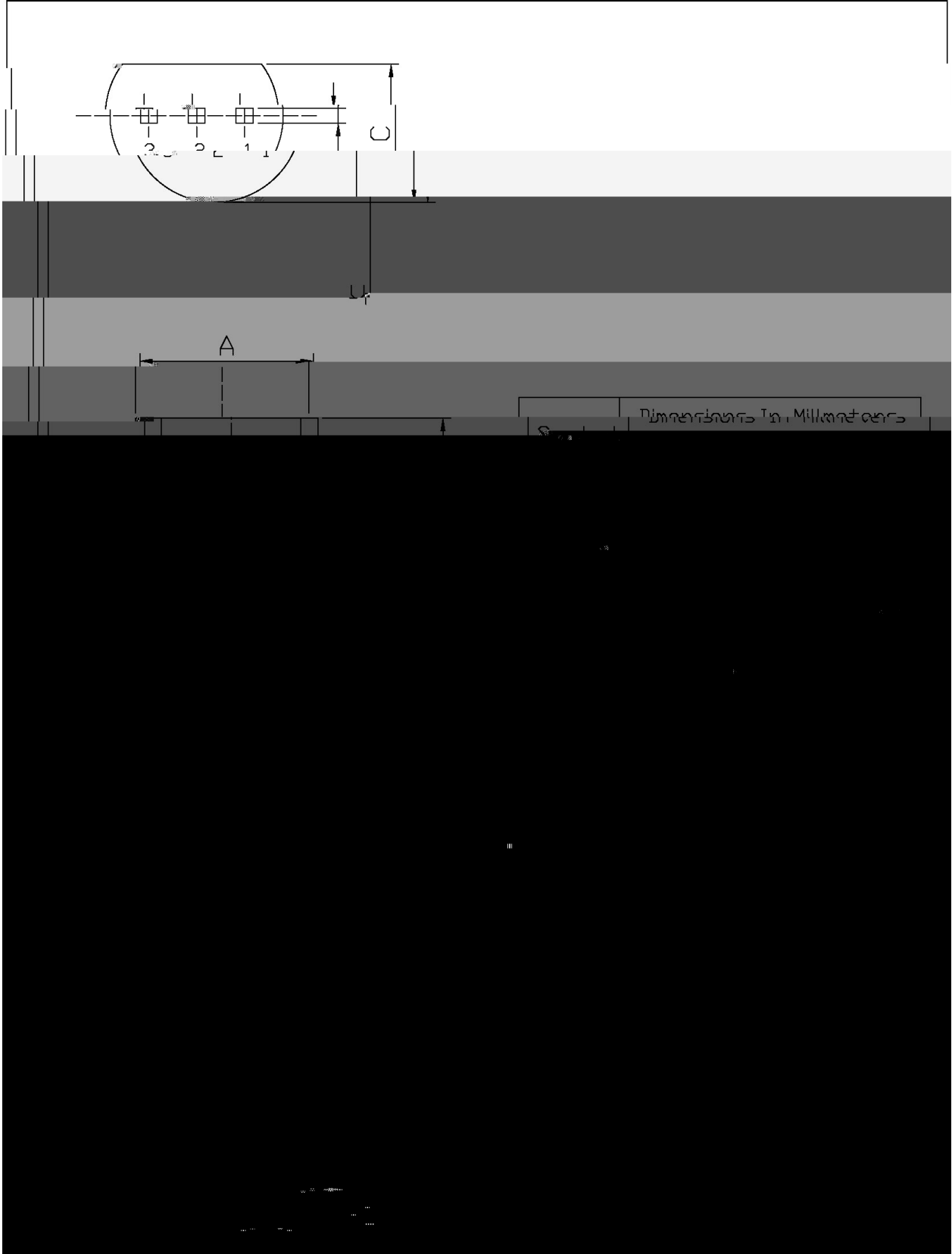
/ Electrical Characteristic Curve



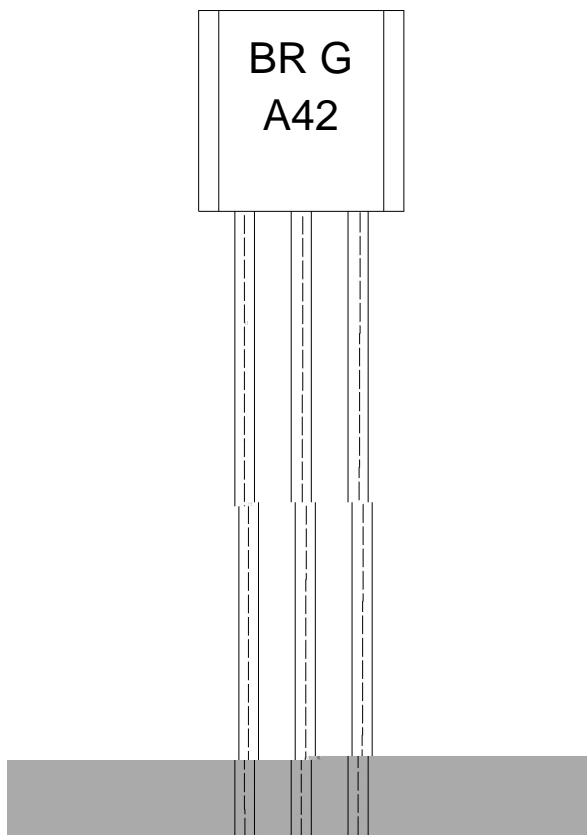
/ Package Dimensions

TO-92

Unit: mm



/ Marking Instructions



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Note:

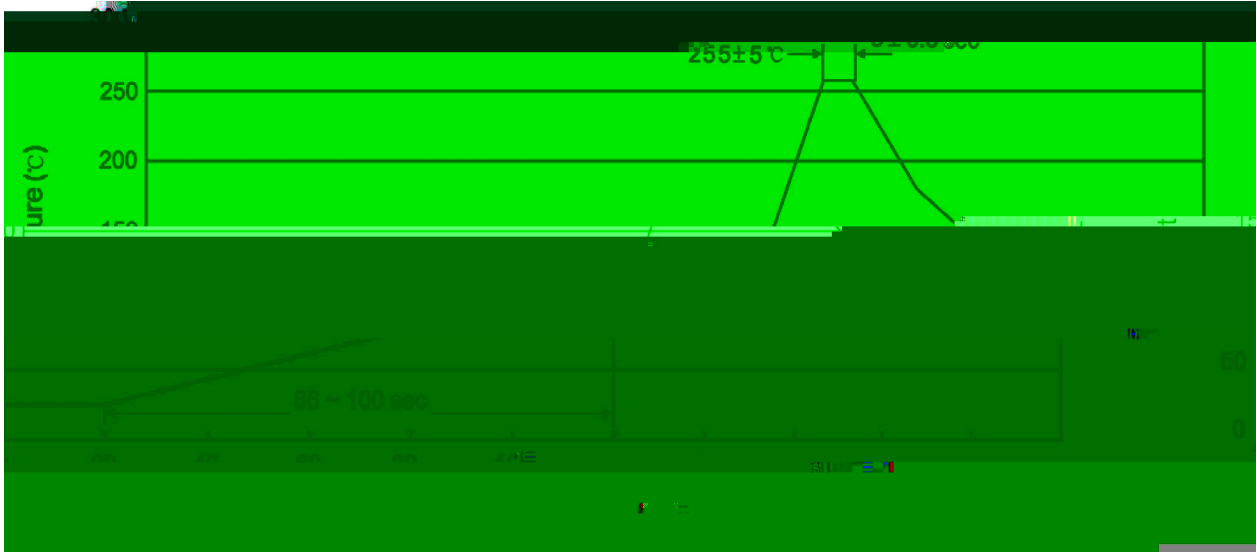
BR: Company Code.

A42: Product Type.

G: Halogen Free Product

****: 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: mm3)
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