

/ Descriptions

WR06S 绝缘栅双极型晶体管 Insulated-Gate Bipolar Transistor in a TO-3P Plastic Package.

/ Features

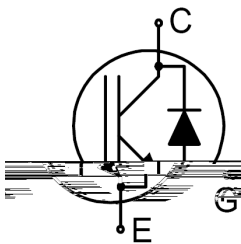
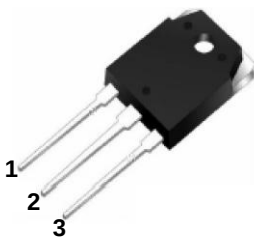
低栅极电荷, 低饱和压降, 正温度系数, RoHS 产品。

Low gate charge,, Low saturation voltage ,Positive temperature coefficient, RoHS product.

/ Applications

通用逆变器, 频率转换器, 感应加热(IH), 不间断电源(UPS)。

General purpose inverter, Frequency converters, Induction Heating(IH), Uninterrupted Power Supply(UPS).

/ Equivalent Circuit**/ Pinning**

PIN1 栅极

PIN 2 集电极

PIN 3 发射极

/ h_{FE} Classifications & Marking

见标记说明。

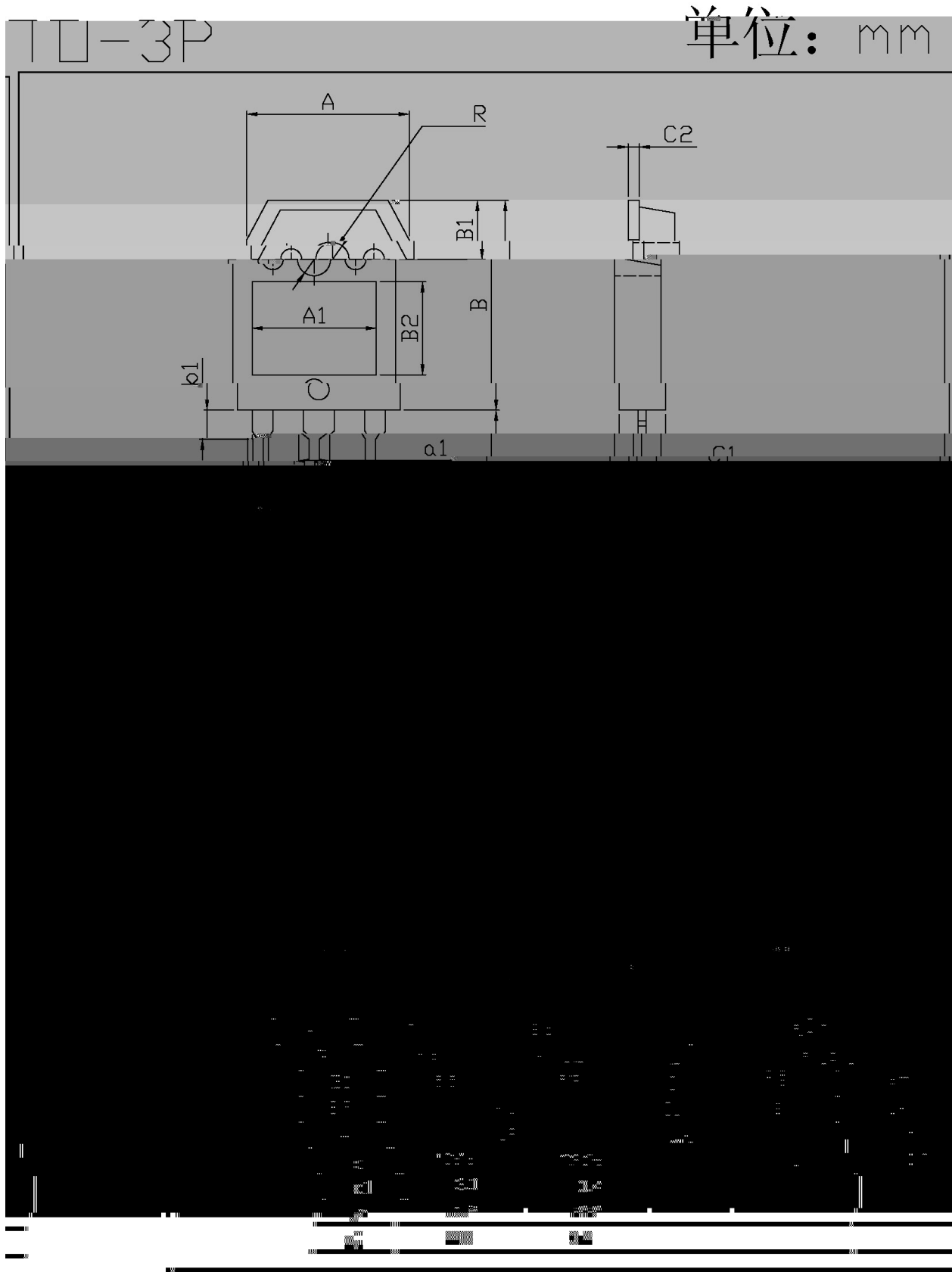


Parameter	Symbol	Rating	Unit
Collector-emitter voltage	V_{CES}	1200	V
Gate-emitter voltage	V_{GES}	± 20	V
Collector current	I_C	50	A
Collector current@ $T_C=100$		25	A
Collector peak current, T_P limited by T_{JMAX}			
Diode forward current@ $T_C=100$	I_F	25	A
Diode maximum forward current	I_{EM}	75	A
Power dissipation($T_c=100$)	P_D		
Operating junction and storage temperature range	T_J, T		

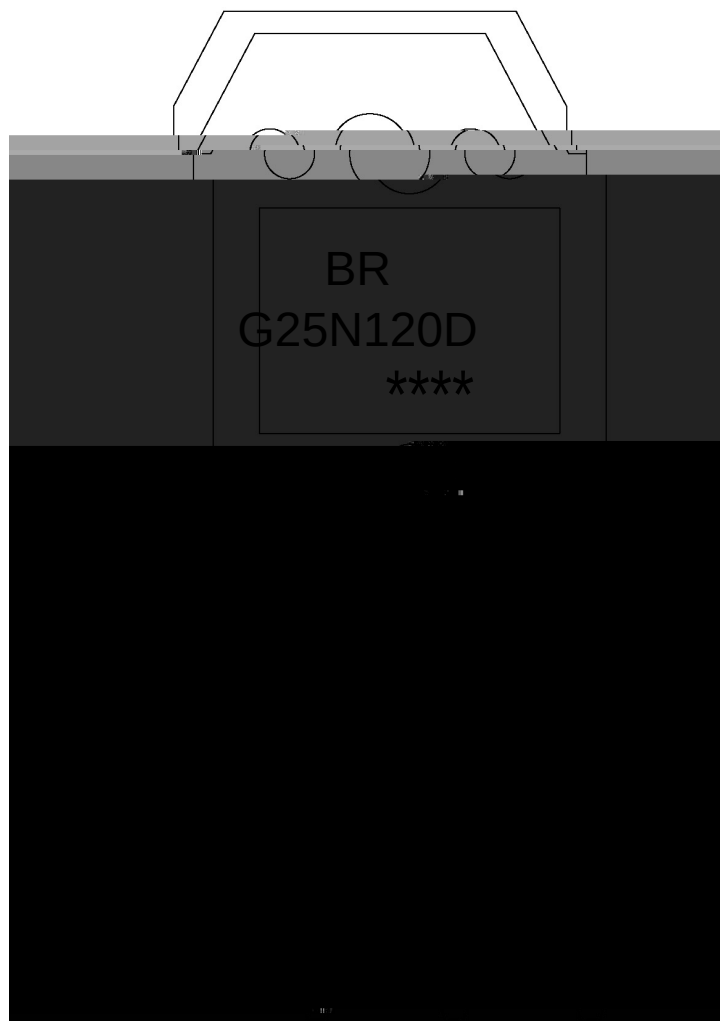
/ Electrical Characteristics(Ta=25 °C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-on delay time	$t_{d(ON)}$	$V_{CE}=600V$ $I_C=25A$ $R_G=10\Omega$ $V_{GE}=15V$ Inductive Load	-	42	-	ns
Rise time	t_r		-	36	-	
Turn-off delay time	$t_{d(OFF)}$		-	224	-	
Fall time	t_f		-	314	-	
Turn-On Switching Loss	E_{on}		-	1.1	2.2	mJ
Turn-Off Switching Loss	E_{off}		-	1.3	1.5	
Total Switching Loss	E_{ts}		-	2.2	3.6	
Total gate charge	Q_G	$V_{CE}=600V$ $I_C=25A$ $V_{GE}=15V$	-	177	274	nC
Gate-emitter charge	Q_{G-E}		-	16	26	
Gate-collector charge	Q_{G-C}		-	61	94	
Diode forward voltage	V_F	$I_F=25A$	-	1.5	2.7	V
Reverse recovery time	T_{rr}	$I_F=25A$ $di/dt=200A/\mu s$	-	535	585	ns
Diode Peak Reverse Recovery Current	I_{rr}		-	43	85	A
Reverse recovery charge	Q_{rr}		-	13	15	uC

/ Package Dimensions



/ Marking Instructions



Б " X

EU:

BR 3 N 120

J58Q453G X

BR F 3 N

---- X

BR 1 F 120 N 120 1 1 F 120 N 120

Note:

BR:

Company Code.

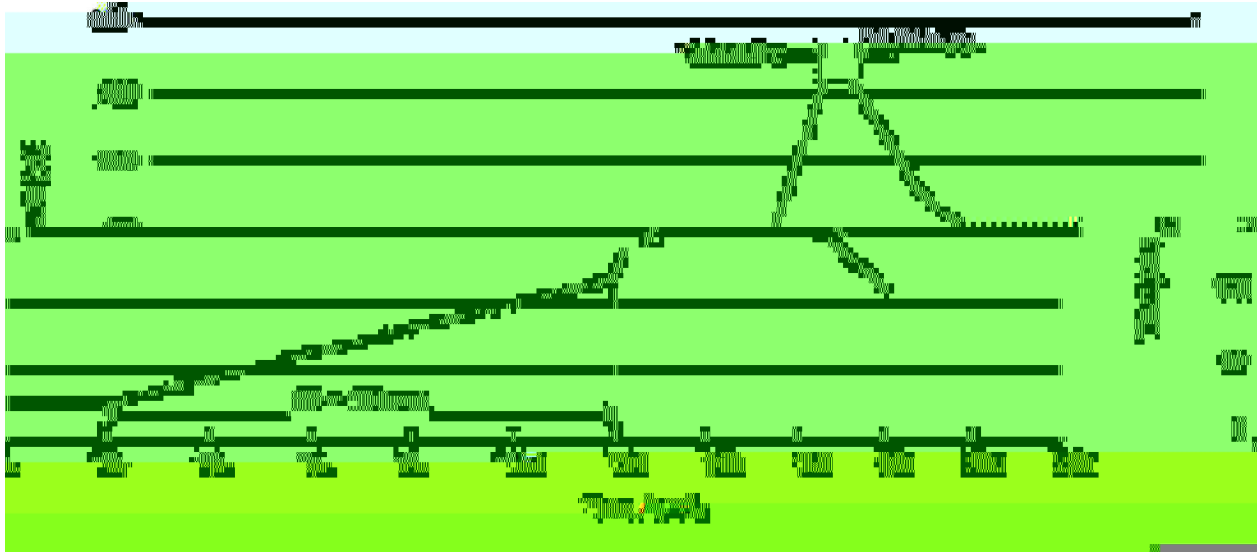
G25N120D:

Product Type.

****:

Lot No. Code, code change with Lot No.

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



б " χ

1. 1. Preheating: 25~150 °C, Time: 60~90sec;
2. 2. Peak Temp.: 255 °C, Duration: 5 ° 0.5sec;
3. 3. Cooling Speed: 2~10 °C/sec.

Note:

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/ Resistance to Soldering Heat Test Conditions

□ ° χ 270 ° 5 °C, °H ° χ 10 ° 1 sec. Temp.: 270±5 Time: 10±1 sec

/ Packaging SPEC.

„ 1 γ t / 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-3P	30	15	450	5	2250	497.5×46×8	555×164×50	575×290×180

/ Notices