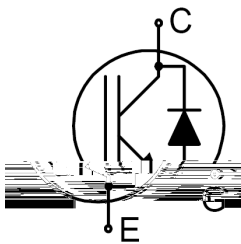
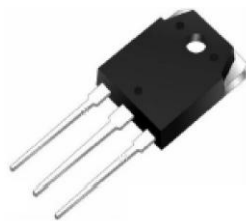


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WR06S 绝缘栅双极型晶体管 Insulated-Gate Bipolar Transistor in a TO-3P Plastic Package.

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.

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).



PIN1 栅极 Gate PIN 2 集电极 Collector PIN 3 发射极 Emitter

标记 See Marking Instructions.

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Parameter	Symbol	Rating	Unit
Collector-emitter voltage	V_{CES}	1200	V
Gate-emitter voltage	V_{GES}	± 20	V
Collector current	I_C	30	A
Collector current@ $T_C=100$		15	A
Collector peak current, T_P limited by T_{JMAX}	I_{CM}	45	A
Diode forward current@ $T_C=100$	I_F	15	A
Diode maximum forward current	I_{FM}	45	A
Power dissipation($T_C=25$)	P_D	186	W
Power dissipation($T_C=100$)		74	W
Operating junction and storage temperature range	T_J, T_{stg}	-55 ~ 150	
Maximum temperature for soldering	T_L	300	
IGBT thermal resistance,junction-case	$R_{th(j-c)}$	0.67	/W
Diode thermal resistance,junction-case	$R_{th(j-C)}$	2.88	/W
Thermal resistance,junction-ambient	$R_{th(j-a)}$	40	/W

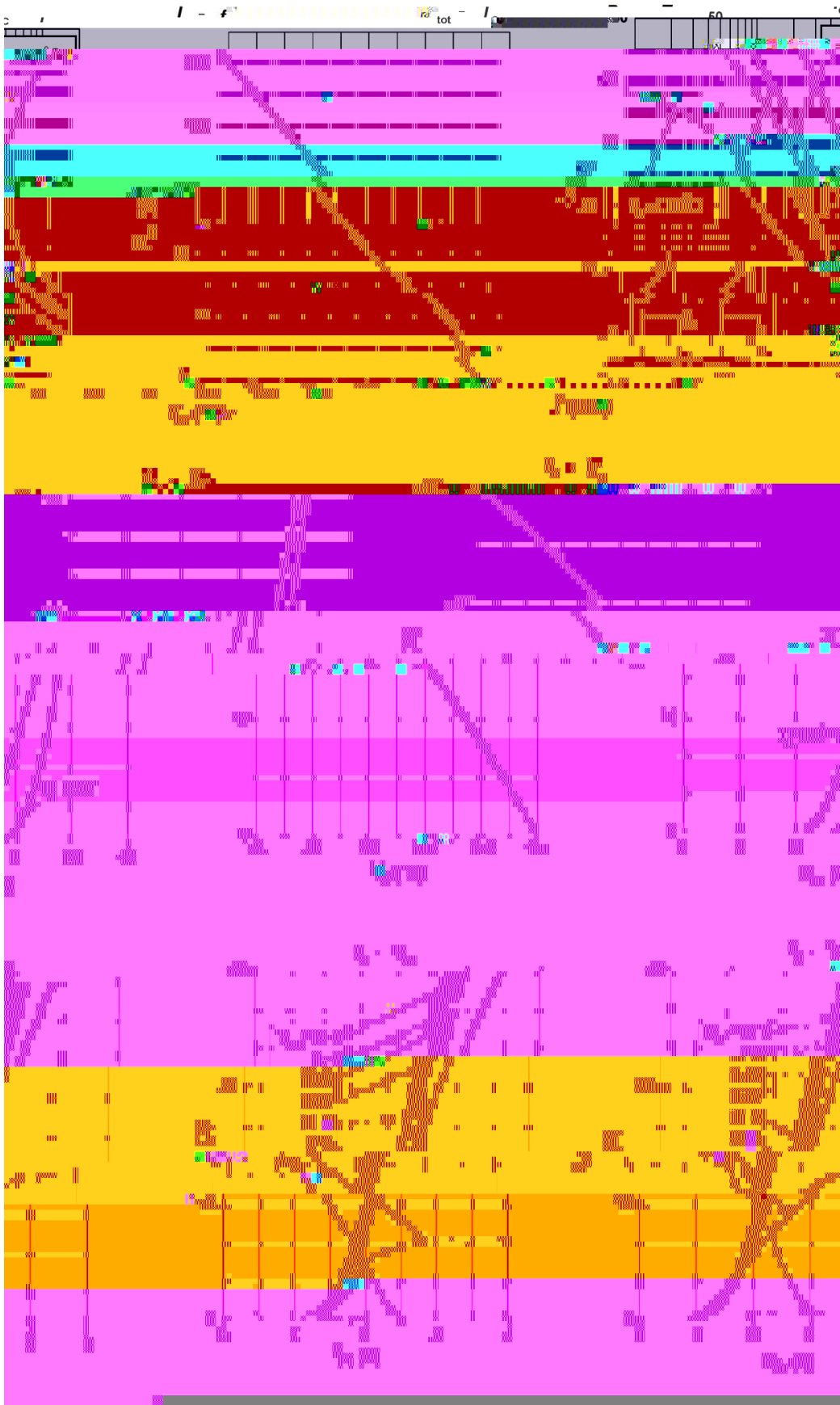
Parameter

Symbol

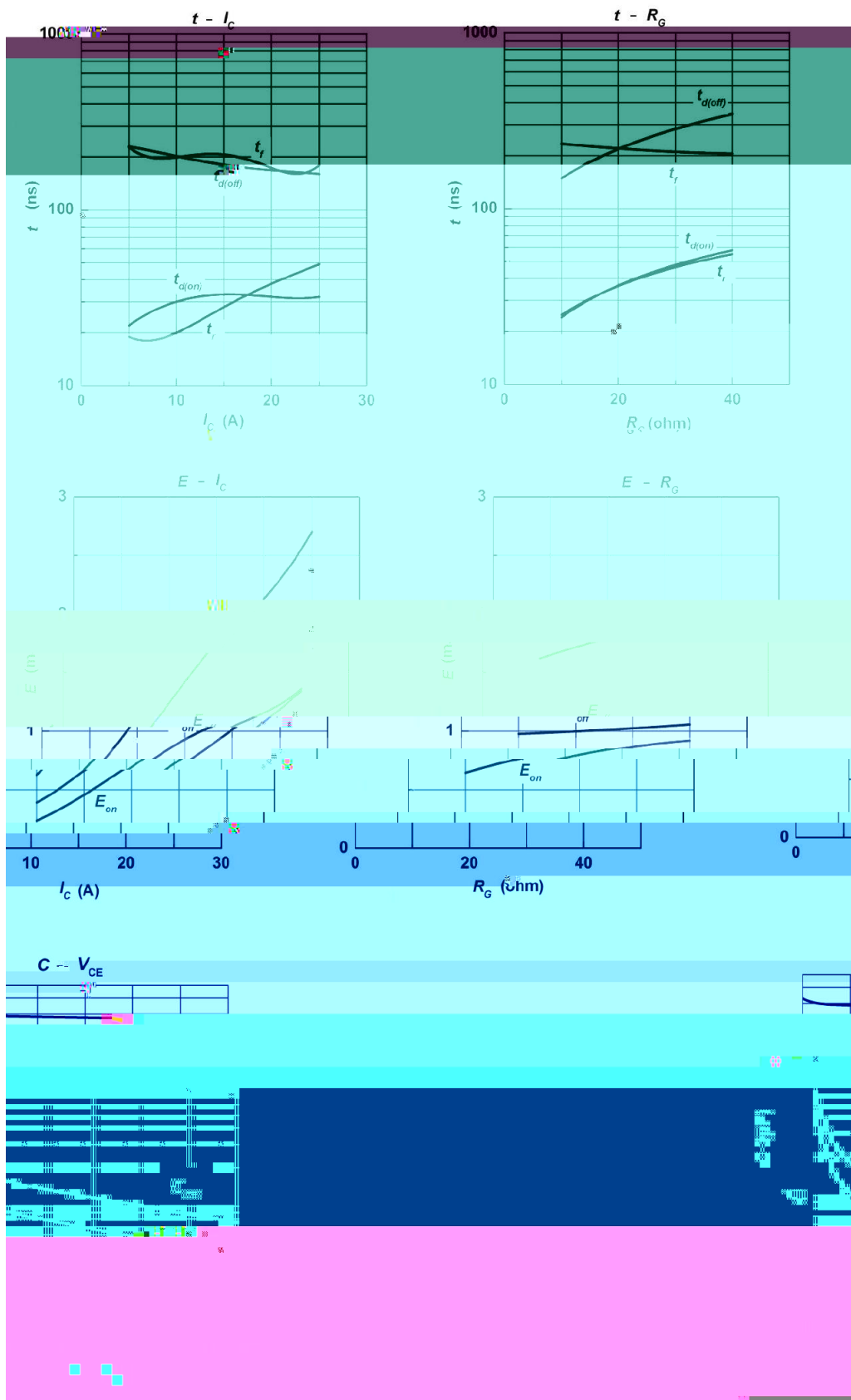
Test Conditions

Min Max

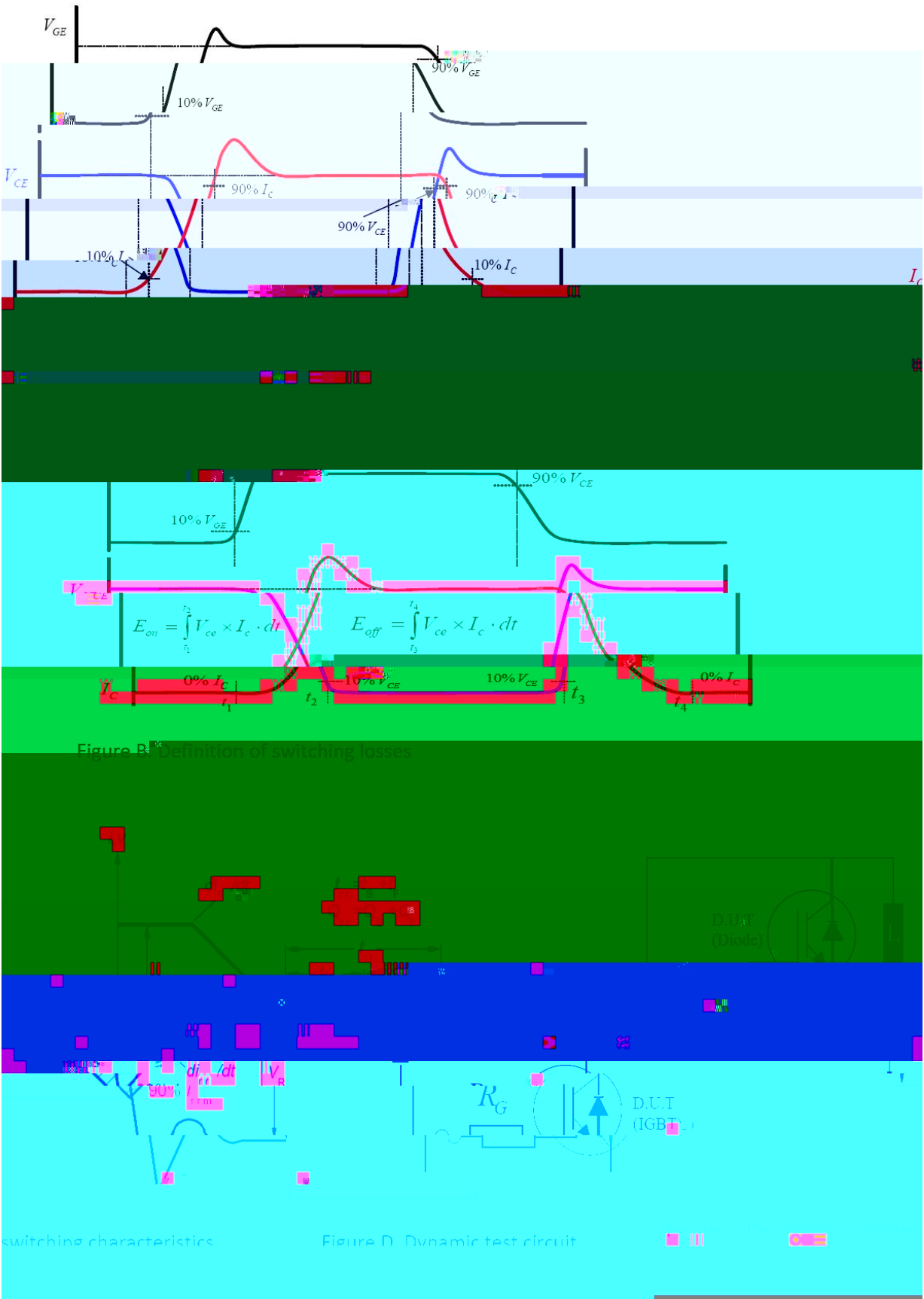
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-on delay time	$t_{d(ON)}$	$V_{CE}=600V$ $I_C=15A$ $R_G=15\Omega$ $V_{GE}=15/0V$ Inductive Load	-	25	-	ns
Rise time	t_r		-	48	-	
Turn-off delay time	$t_{d(OFF)}$		-	155	-	
Fall time	t_f		-	115	-	
Turn-On Switching Loss	E_{on}		-	0.67	-	mJ
Turn-Off Switching Loss	E_{off}		-	0.45	-	
Total Switching Loss	E_{ts}		-	1.12	-	
Total gate charge	Q_G	$V_{CE}=600V$ $I_C=15A$ $V_{GE}=15V$	-	130	180	nC
Gate-emitter charge	Q_{G-E}		-	15	22	
Gate-collector charge	Q_{G-C}		-	50	65	
Diode forward voltage	V_F	$I_F=15A$	-	1.2	2.0	V
Reverse recovery time	T_{rr}	$I_F=15A$ $di/dt=200A/\mu S$	-	330	360	ns
Diode Peak Reverse Recovery Current	I_{rr}		-	30	40	A
Reverse recovery charge	Q_{rr}		-	4770	6600	nC



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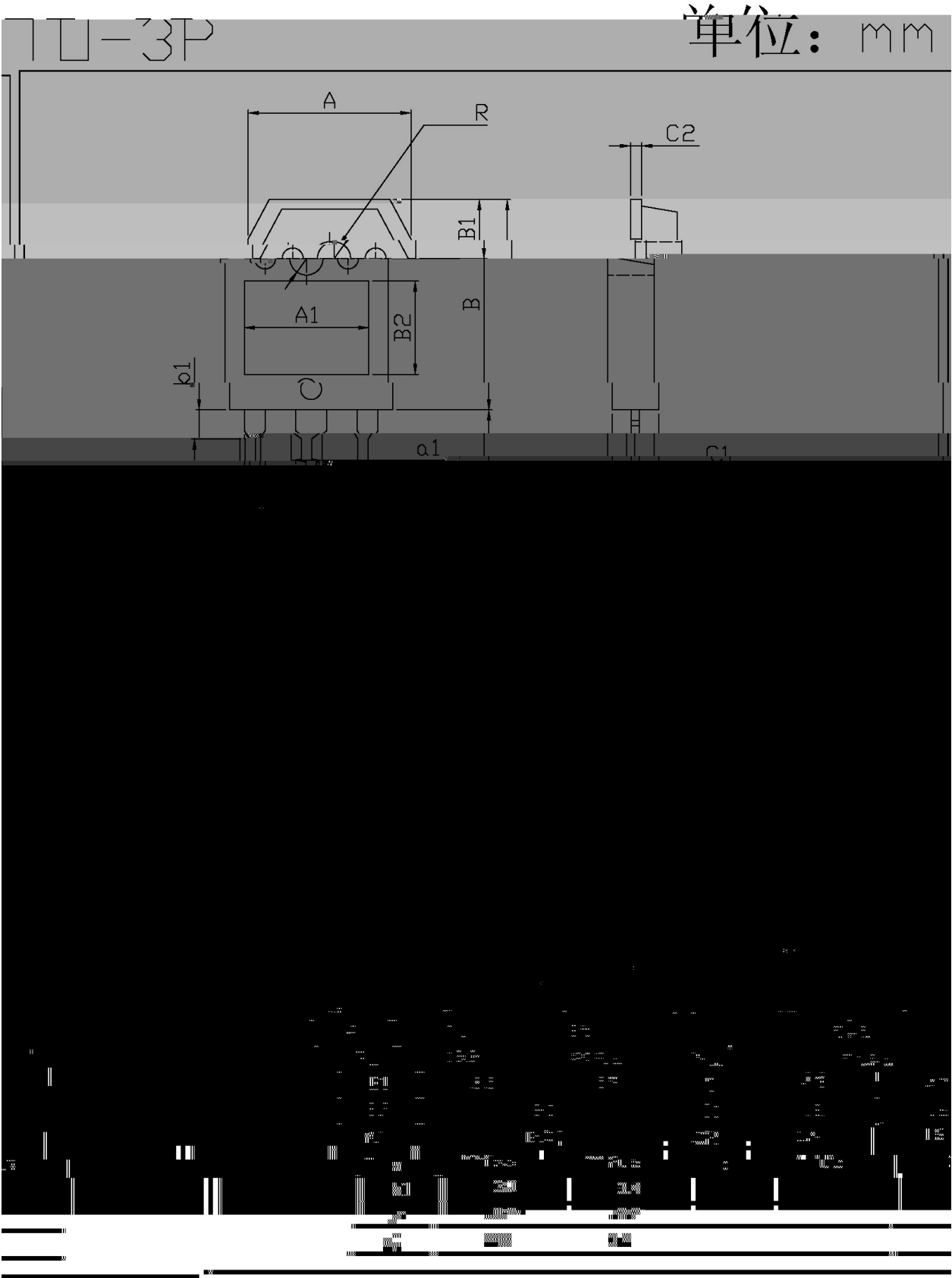


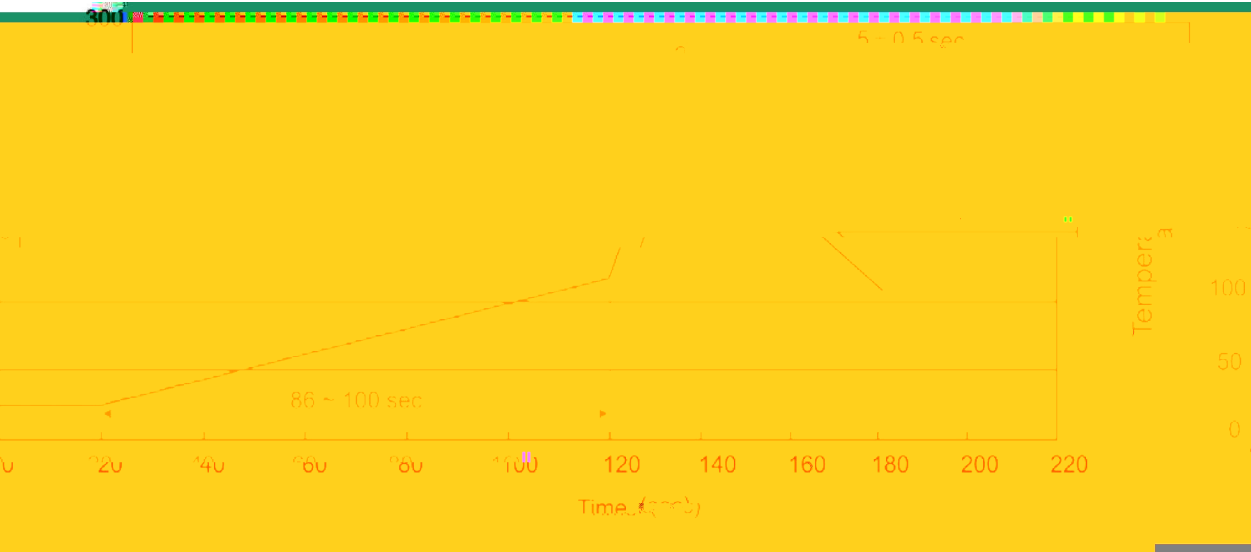
I



switching characteristics

Figure D: Dynamic test circuit





- 注意

 1. 预加热: 25~150 ℃ , 时间: 60~90sec;
 2. 峰值温度: 255 ℃ , 持续时间: 5~0.5sec;
 3. 冷却速度: 2~10 ℃ /sec.
- Note:

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

峰值温度 270 ℃ ± 5 时间 10 ± 1 sec.

Temp.:270±5 Time:10±1 sec

管 式 封 装 / TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-3P	30	15	450	5	2250	497.5×46×8	555×164×50	575 290 180