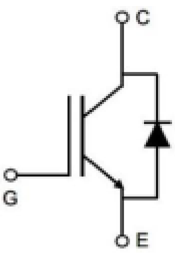
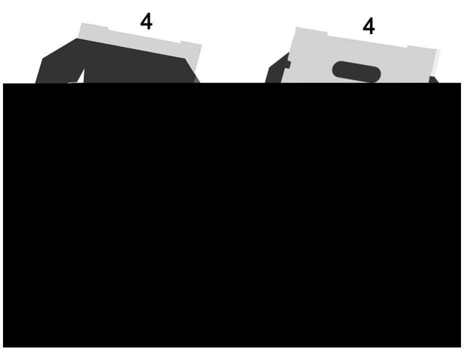
TO-252
Insulated-Gate Bipolar Transistor in a TO-252 Plastic Package.

di/dt
$V_{CE(SAT)}$

HF Product.

Motor Drives, Home Appliance Applications, Fan, Pumps, Vacuum Cleaner, Other Hard Switching Applications.





PIN1 G PIN 2 C PIN 3 E PIN 4 C

See Marking Instructions.

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Gate-Emitter leakage current	I_{GES}	V_{CE}=0V, V				

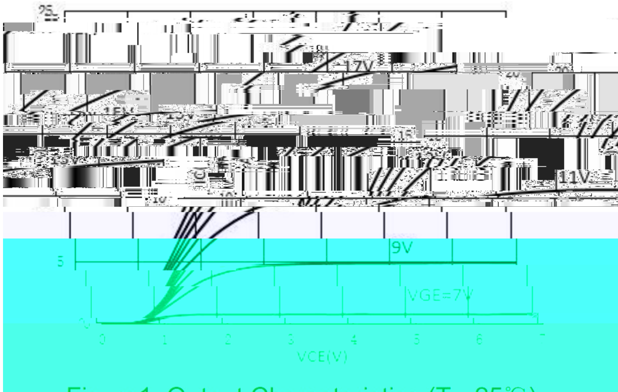


Figure1: Output Characteristics(Tj=25℃)

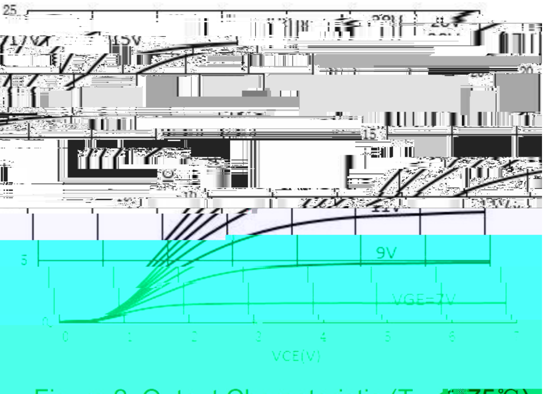


Figure2: Output Characteristics(Tj=175℃)

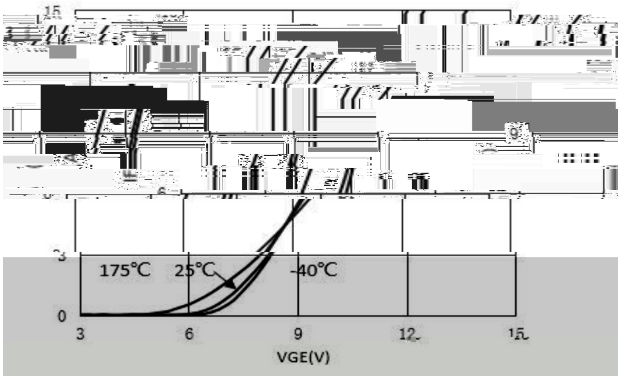


Figure3:Transfer Characteristic

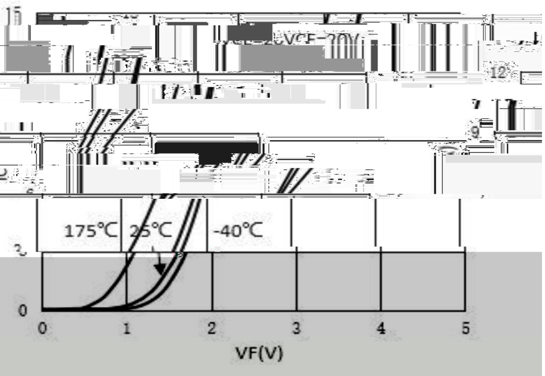


Figure4: Diode Characteristics

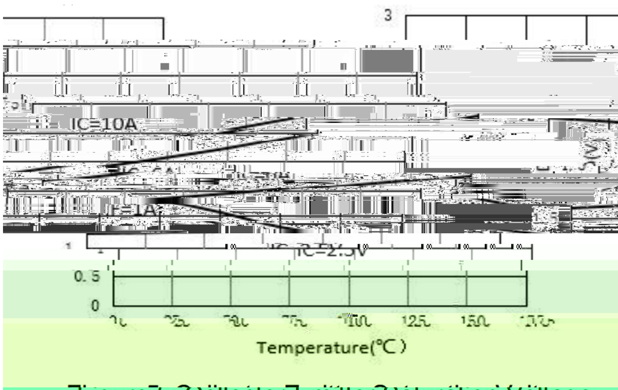


Figure5: Collector-Emitter Saturation Voltage vs Junction Temperature

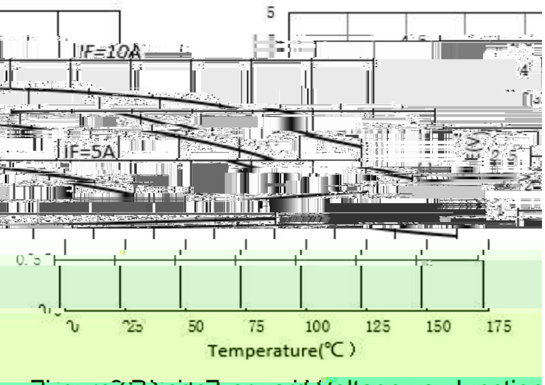
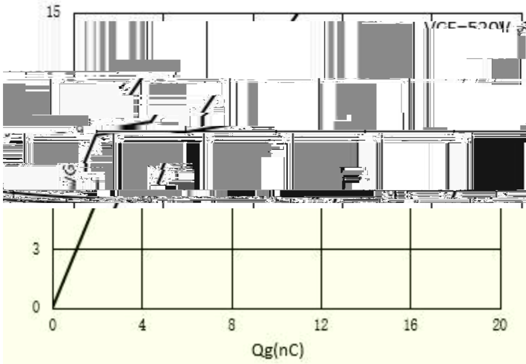


Figure6: Diode Forward Voltage vs Junction Temperature



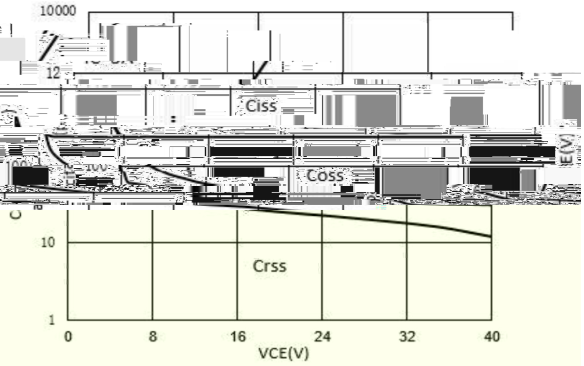
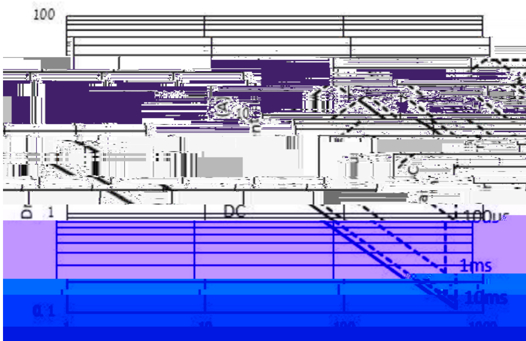
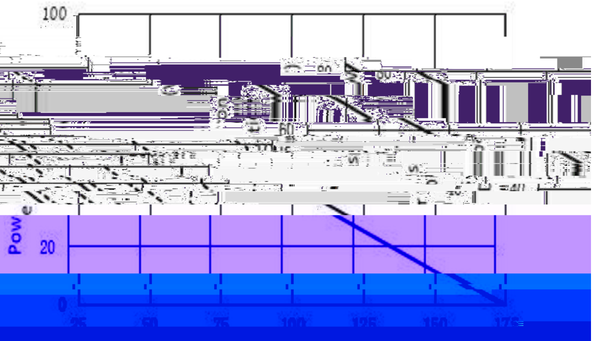
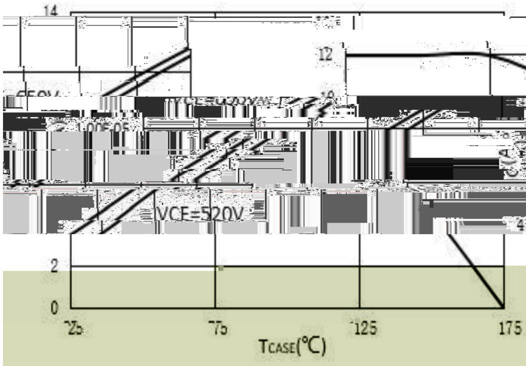


Figure 7: Gate Charge Characteristics

Figure 8: Capacitance Characteristics







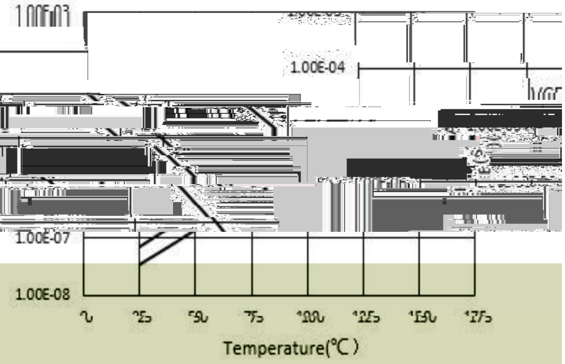
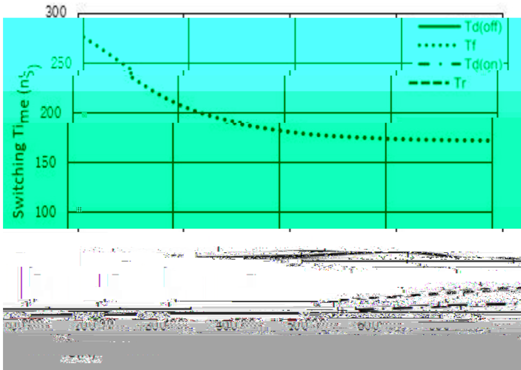
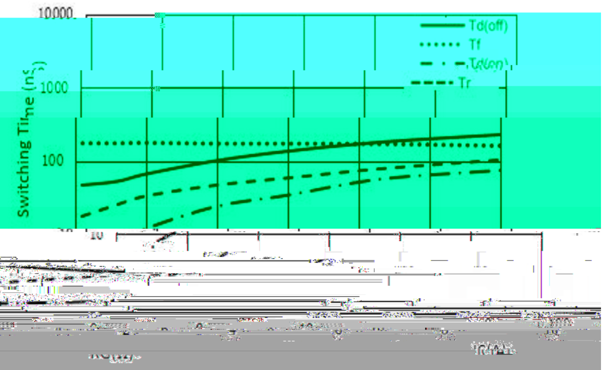


Figure 11: Current De-rating

Figure 12: Diode Reverse Leakage Current vs. Junction Temperature





3:Switching Time vs Ic

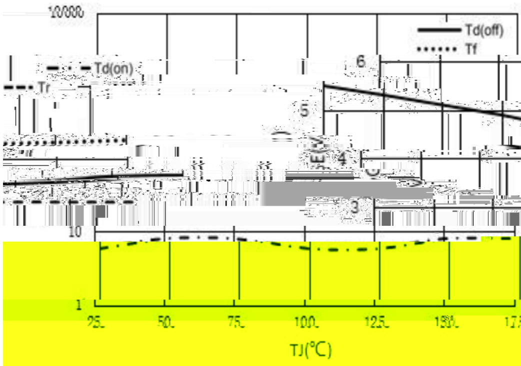
$_J$=175℃,V_{GE}=15V,V_{CE}=400V,R_g=60Ω)

Figure 14: Switching Time vs Rg

(T_J=175℃,V_{GE}=15V,V_{CE}=400V,I_C=6A)

Figure 1

(T



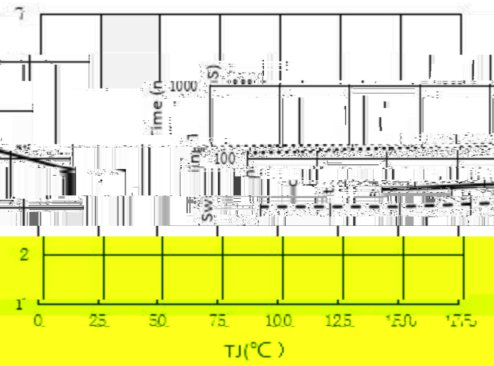
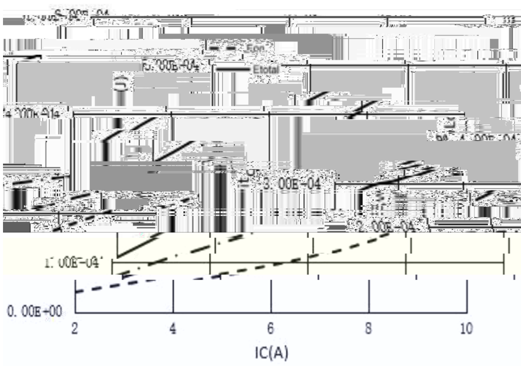


Figure 15: Switching Time vs. TJ

(V_{GE}=15V,V_{CE}=400V,I_C=6A,R_g=60Ω)

Figure 16: V_{GE} vs. TJ



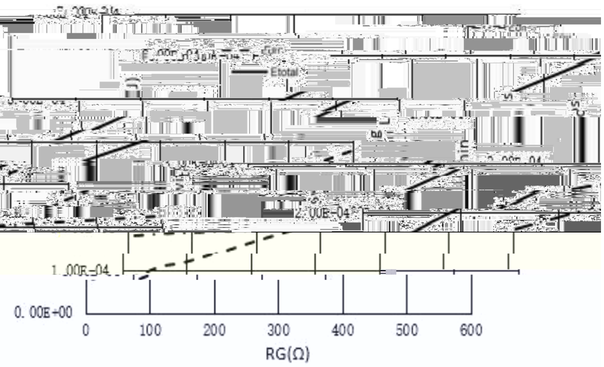


Figure 17: Switching Loss vs. Ic

Figure 18: Switching Loss vs. Rg

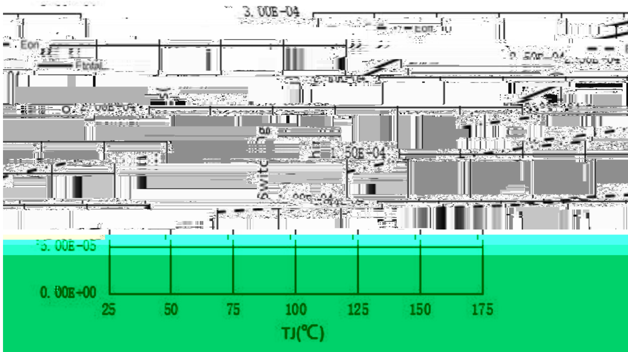


Figure 19: Switching Loss vs. TJ

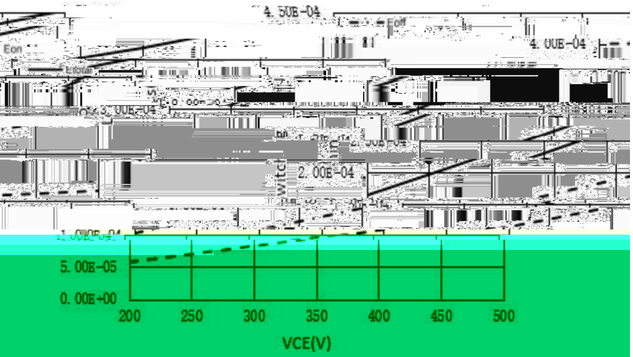


Figure 20: Switching Loss vs. VCE

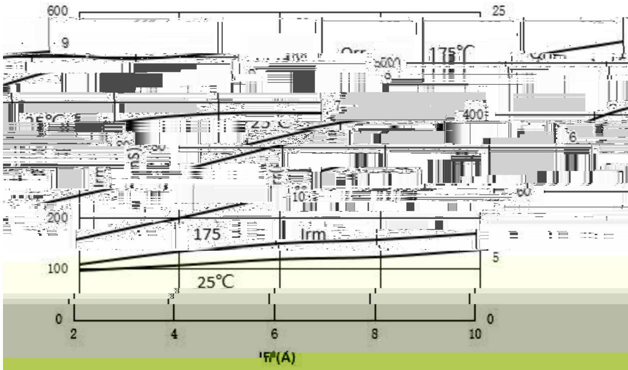


Figure 21: Diode Reverse Recovery Charge and Peak Current vs. Conduction Current

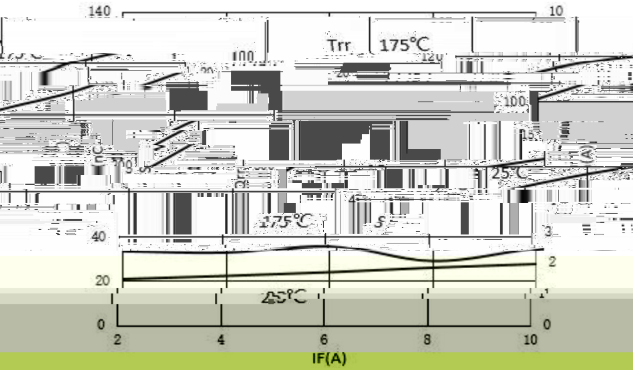


Figure 22: Diode Reverse Recovery Time and Softness Factor vs. Conduction Current

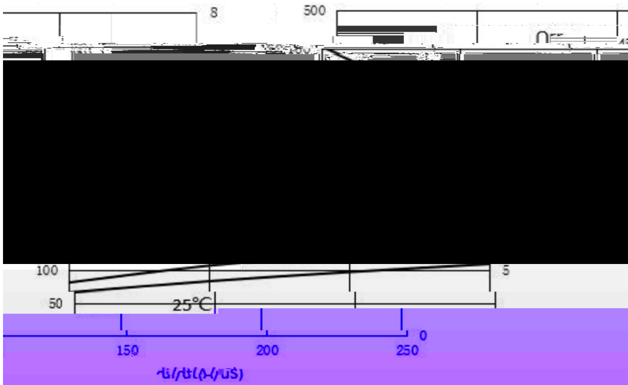


Figure 23: Diode Reverse Recovery Charge and Peak Current vs. di/dt

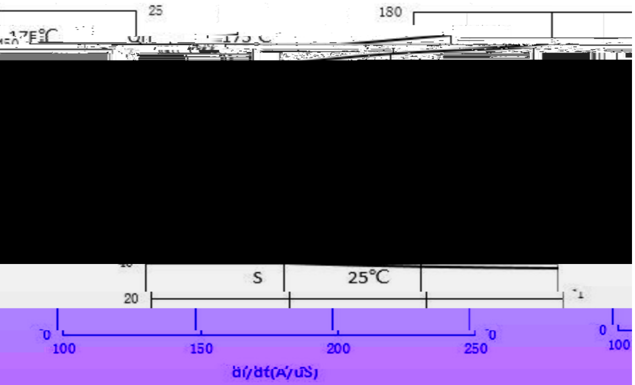


Figure 24: Diode Reverse Recovery Time and Softness Factor vs. di/dt

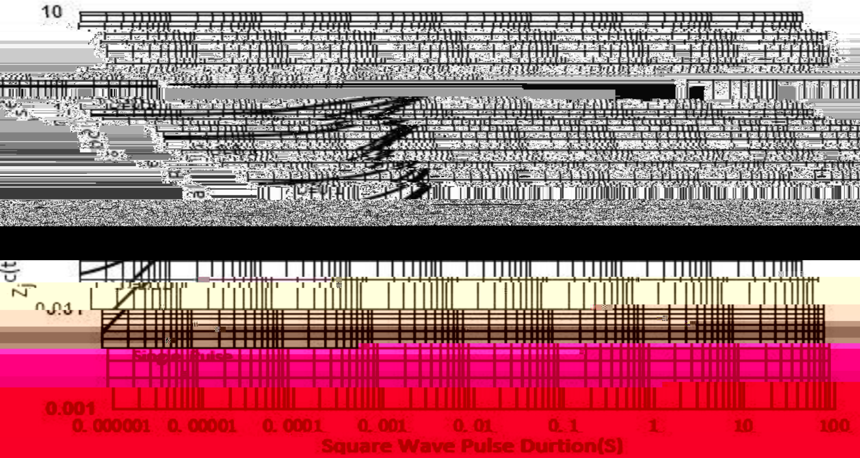
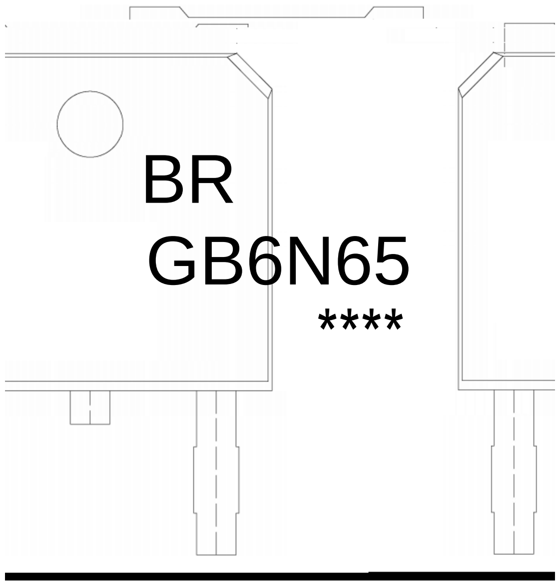


Figure 25: Normalized Maximum Transient Thermal Impedance for IGBT



BR

GB6N65

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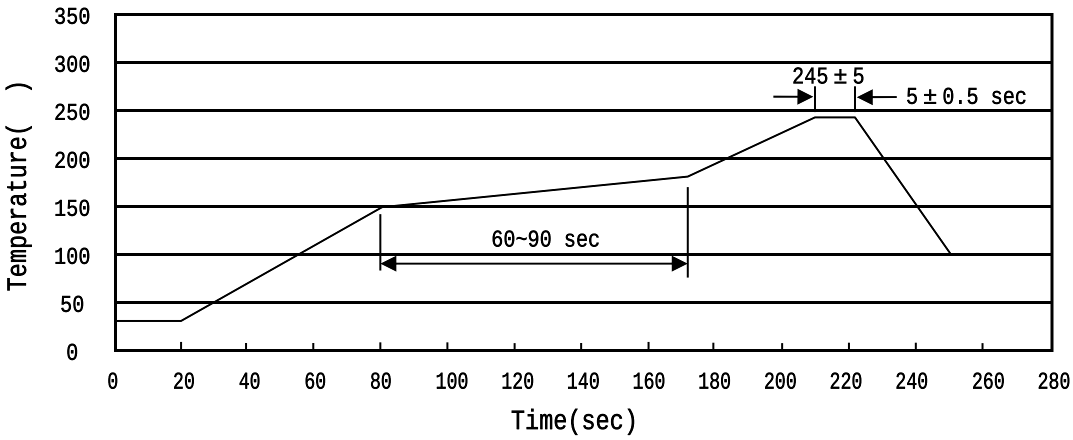
Note:

BR:	Company Code
GB6N65:	Product Type Code
****:	Lot No. Code, code change with Lot No



1 150 180 60 90sec;

2 245±5 5±0.5sec;

3 2 10 /sec.

Note:

1.Preheating:150~180 , Time:60~90sec.

2.Peak Temp.:245±5 , Duration:5±0.5sec.

3. Cooling Speed: 2~10 /sec.

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

/ REEL

Package Type	Units					Dimension (unit mm^3)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
TO-252	2,500	2	5,000	6	30,000	13 ×16	360×360×50	380×335×366

/ 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-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180