

Rev.A Aug.-2023

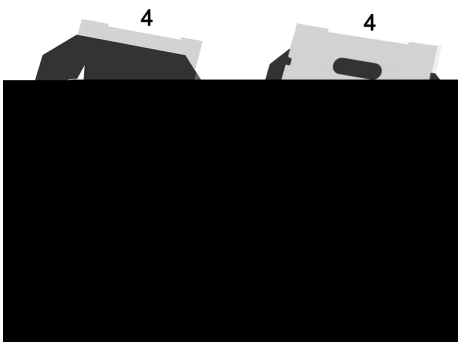
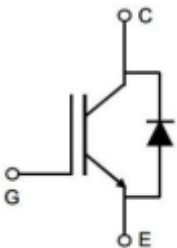
TO-252

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.



PIN 1 G PIN 2 C PIN 3 E PIN 4 C

See Marking Instructions.

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

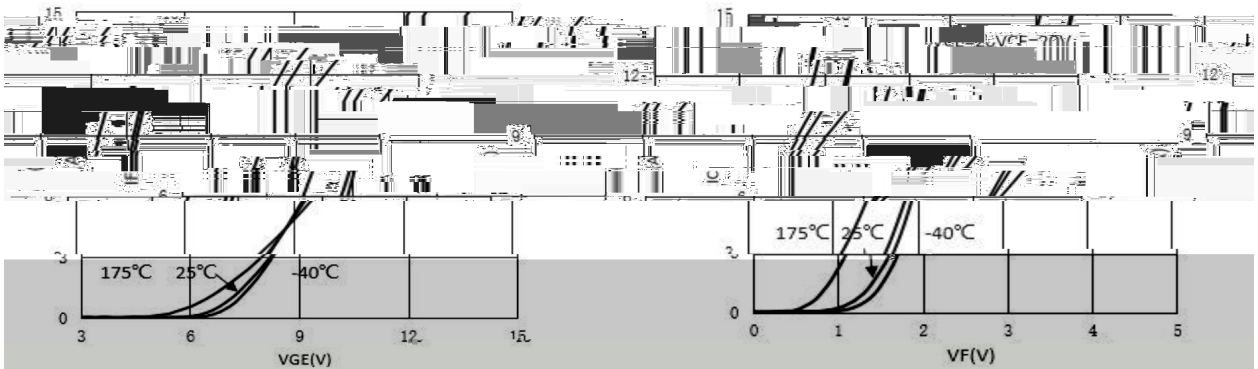
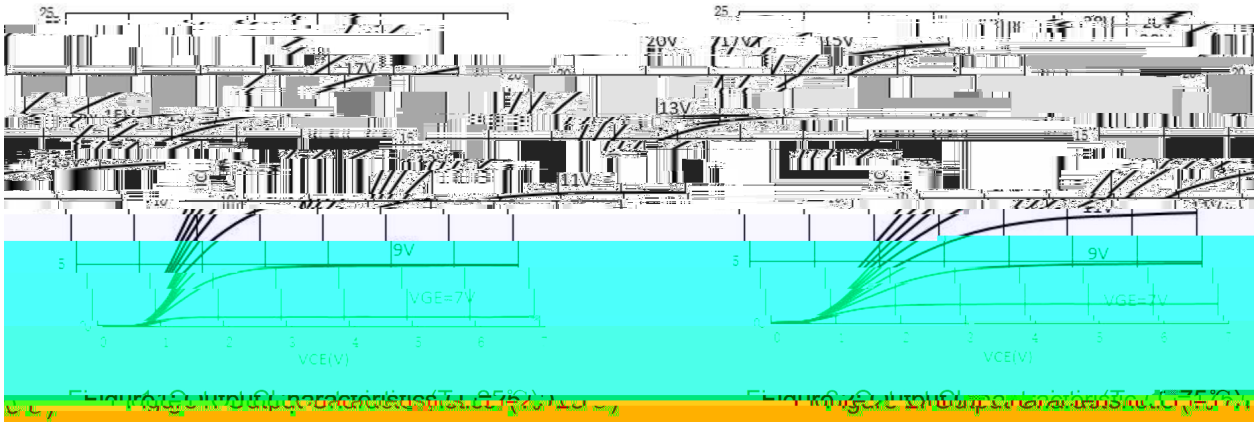


Figure 2: Transfer Characteristics

Figure 4: Diode Characteristics

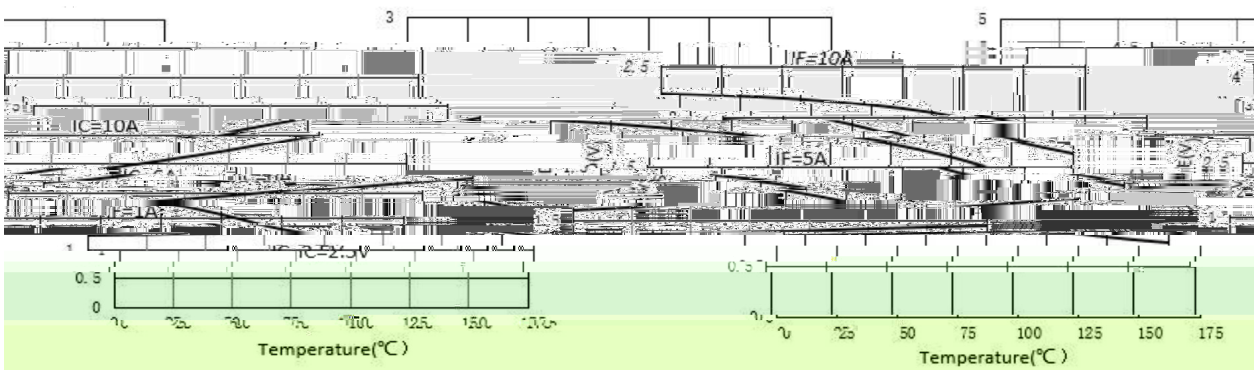


Figure 3: Diode Characteristics

Figure 5: Diode Characteristics

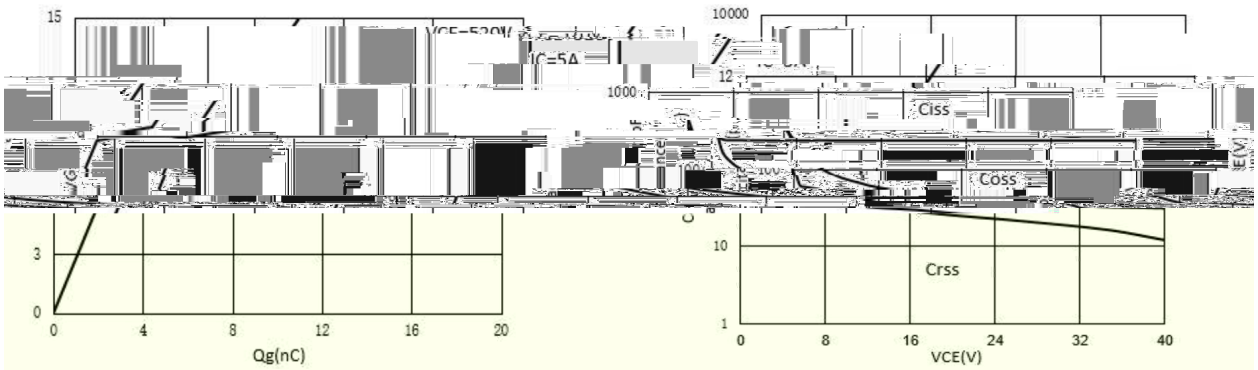


Figure 7: Qg vs VCE

Figure 8: Crss vs VCE

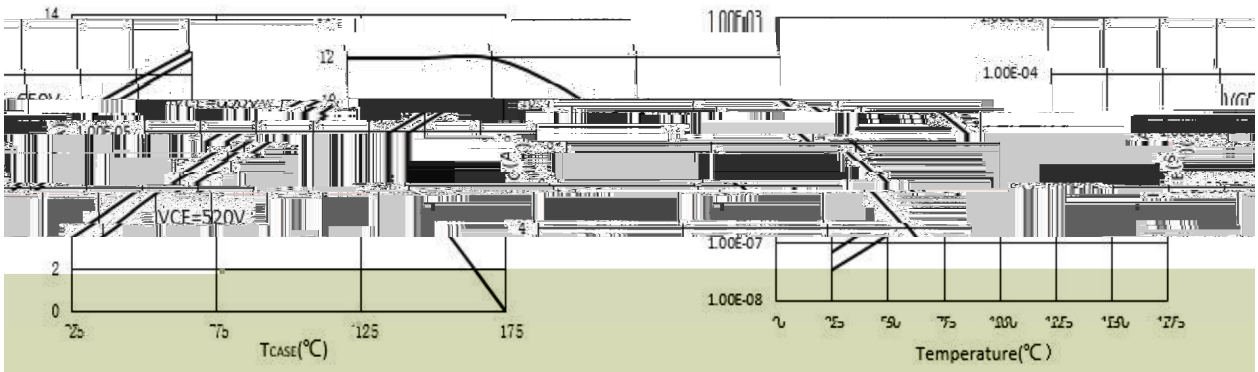
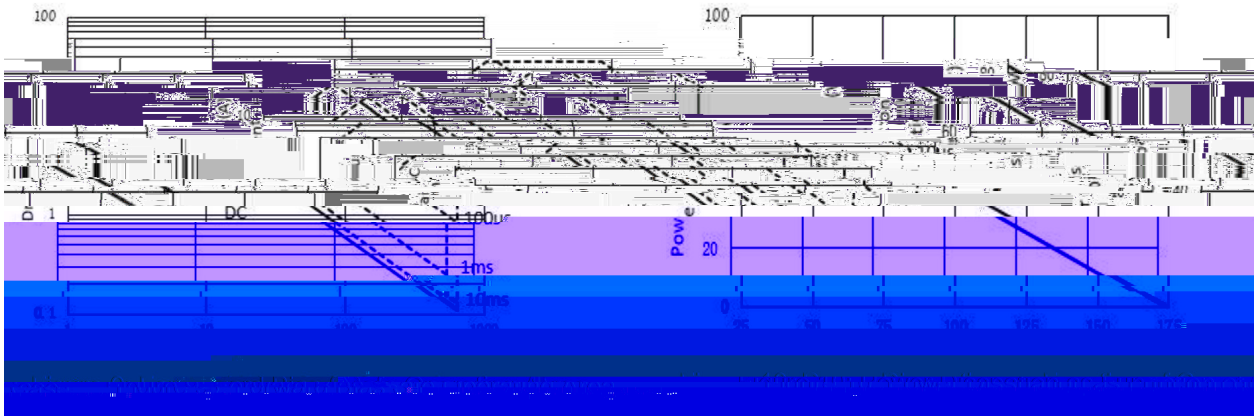


Figure 11: Cur vs Tcase

Figure 12: Cur vs Temperature vs Junction Temperature

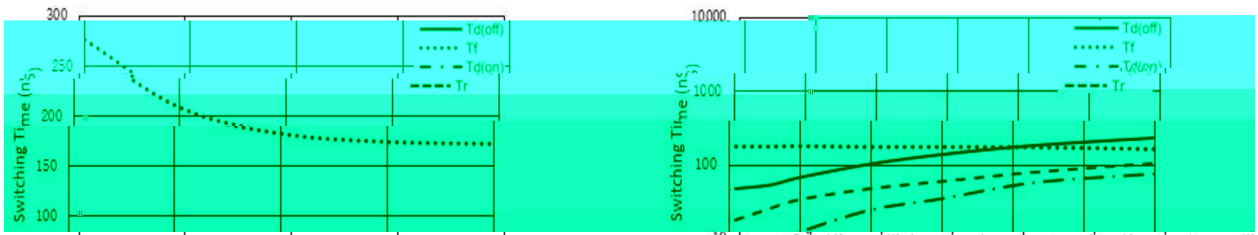


Figure 13: Switching Time vs. V_{gs}
($T_J=175^\circ\text{C}, V_{GE}=15\text{V}, V_{CE}=400\text{V}, R_g=60\Omega$)

Figure 14: Switching Time vs. R_g
($T_J=175^\circ\text{C}, V_{GE}=15\text{V}, V_{CE}=400\text{V}, I_c=6\text{A}$)

Figure 15: Switching Time vs. T_J
($V_{GE}=15\text{V}, V_{CE}=400\text{V}, I_c=6\text{A}, R_g=60\Omega$)

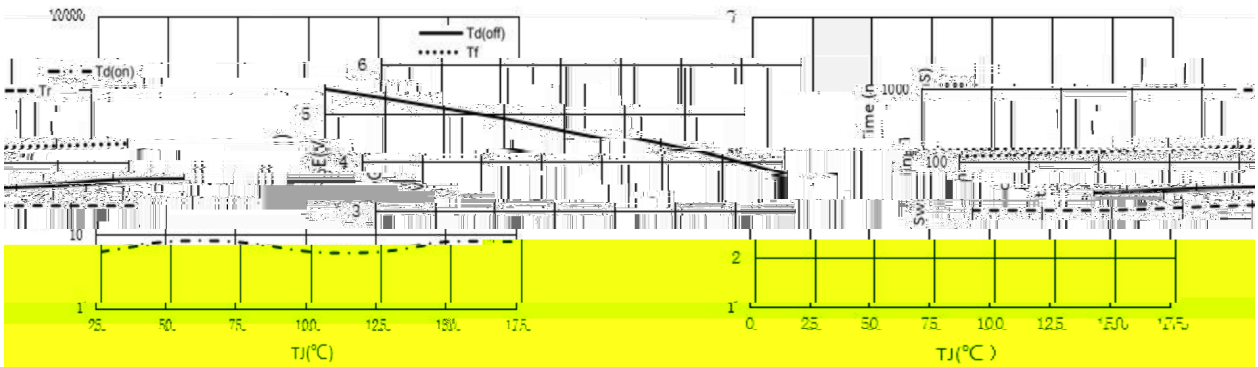


Figure 15: Switching Time vs. T_J
($V_{GE}=15\text{V}, V_{CE}=400\text{V}, I_c=6\text{A}, R_g=60\Omega$)

Figure 16: Switching Time vs. I_c
($T_J=175^\circ\text{C}, V_{GE}=15\text{V}, V_{CE}=400\text{V}, R_g=60\Omega$)

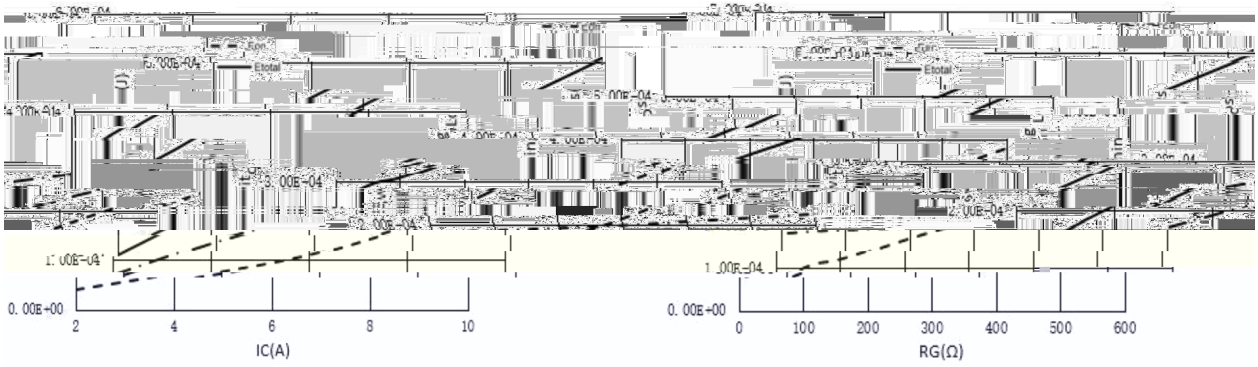
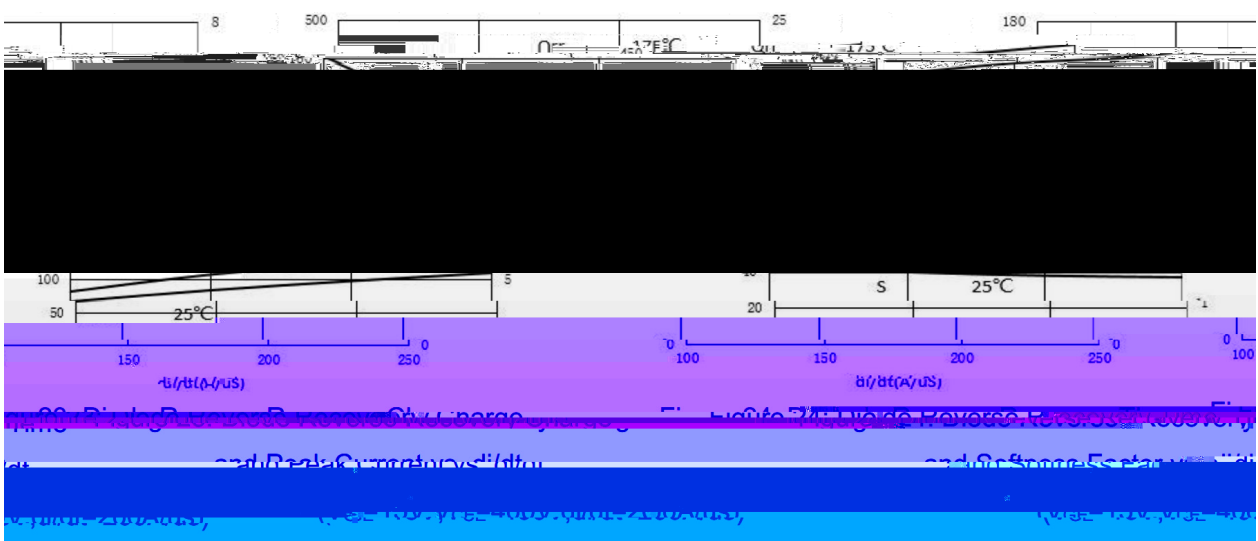
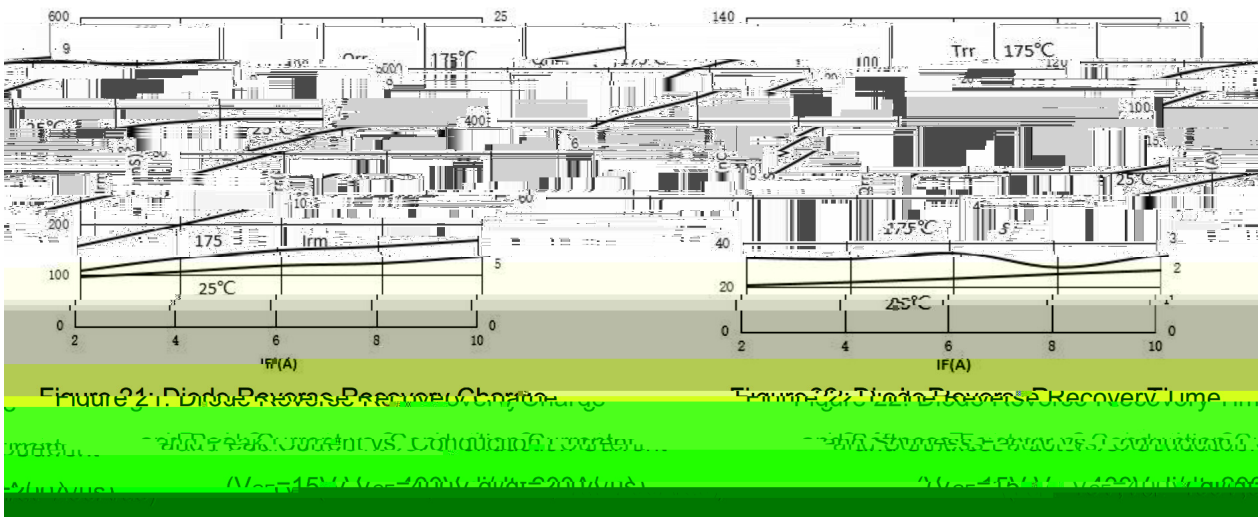
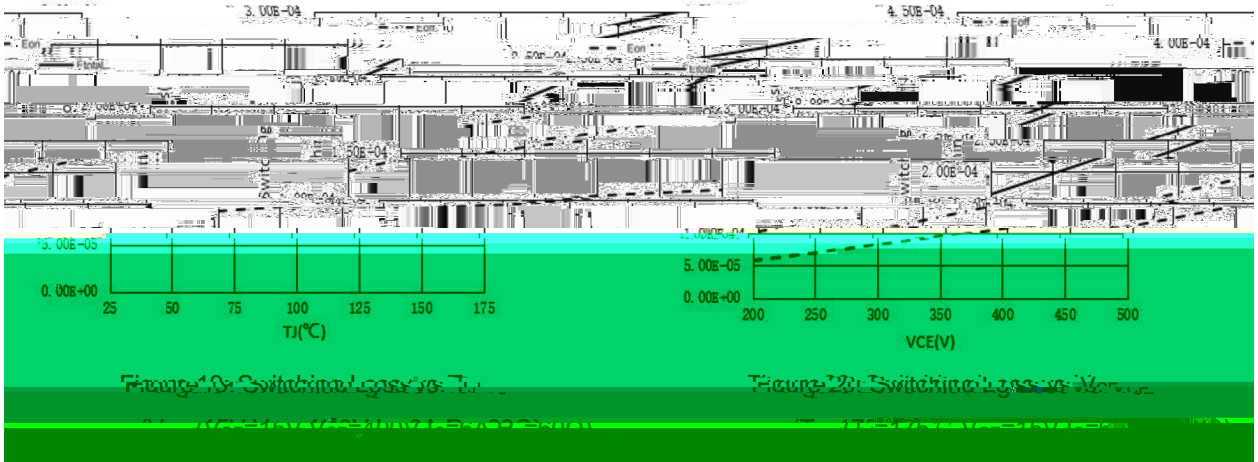
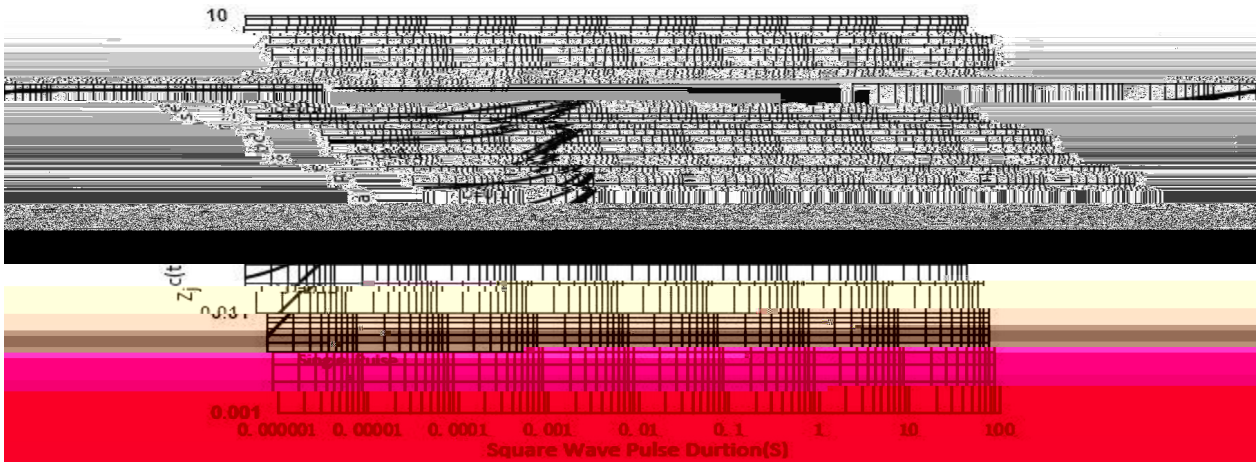
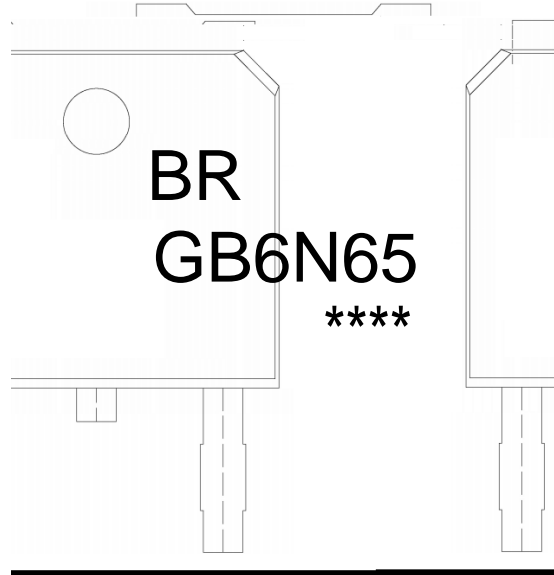


Figure 17: Switching Time vs. I_c
($T_J=175^\circ\text{C}, V_{GE}=15\text{V}, V_{CE}=400\text{V}, R_g=60\Omega$)

Figure 18: Switching Time vs. R_g
($T_J=175^\circ\text{C}, V_{GE}=15\text{V}, V_{CE}=400\text{V}, I_c=6\text{A}$)







BR

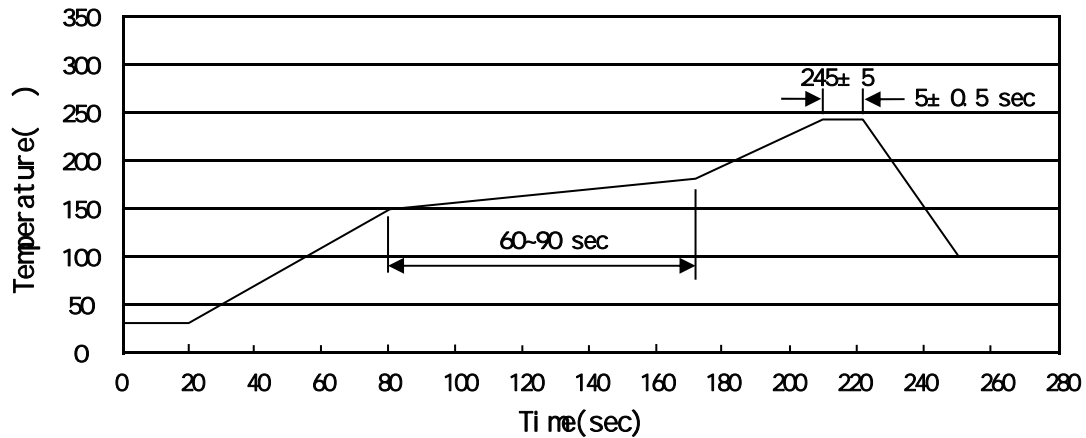
GB6N 65

Note:

BR: Company Code

GB6N65: Product Type Code

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



Note:

- | | | | | | |
|---|-------|-----|-------|--------|---|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | | 5±0.5 | sec; | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | | 2 | 10 | /sec. | 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 x16	360x360x50	380x335x366

/ 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	526x20.5x5.25	555x164x50	575x290x180