

| Parameter | Symbol | Rating | Unit |
|----------------------|-----------------------|--------|------|
| Drain-Source Voltage | V_{DSS} | 650 | V |
| Drain Current | $I_D(T_c=25^\circ C)$ | 8.5 | A |

/ Electrical Characteristics(Ta=25)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|----------------------------------|----------|--|-----|------|-----|------|
| Continuous Diode Forward Current | I_S | | | | 8.5 | A |
| Total Gate Charge | Q_g | $V_{DS}=520V \quad I_D=3.5A$ $V_{GS}=10V$ | | 2.8 | | nC |
| Gate-Source Charge | Q_{gs} | | | 4.7 | | nC |
| Gate-Drain Charge | Q_{gd} | | | 13.3 | | nC |
| Reverse recovery time | T_{rr} | $V_R=50V, I_F=3.5A,$ $dI_F/dt=100A/\mu s$ | | 201 | | ns |
| Reverse recovery charge | Q_{rr} | | | 1.3 | | uC |

/ Electrical Characteristic Curve

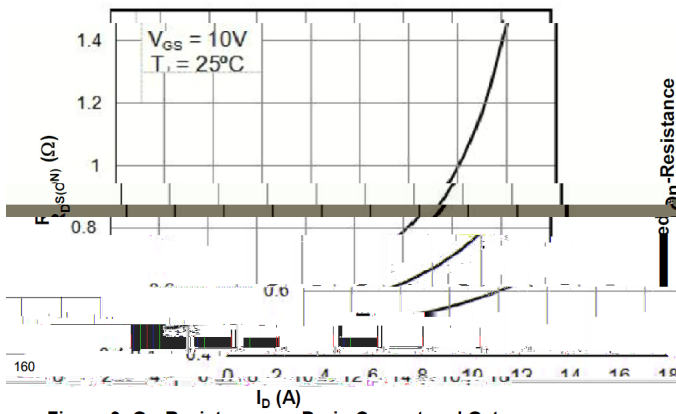
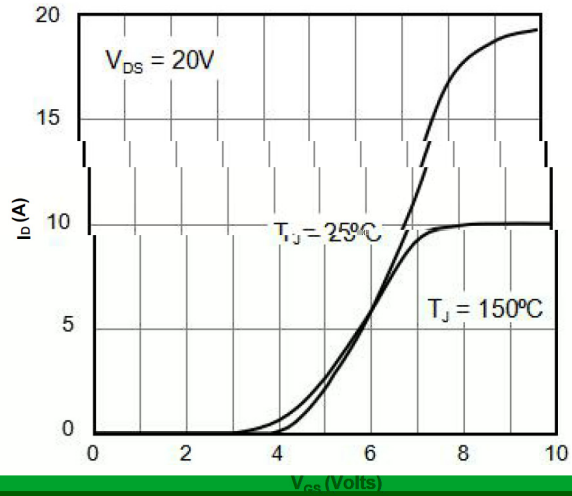
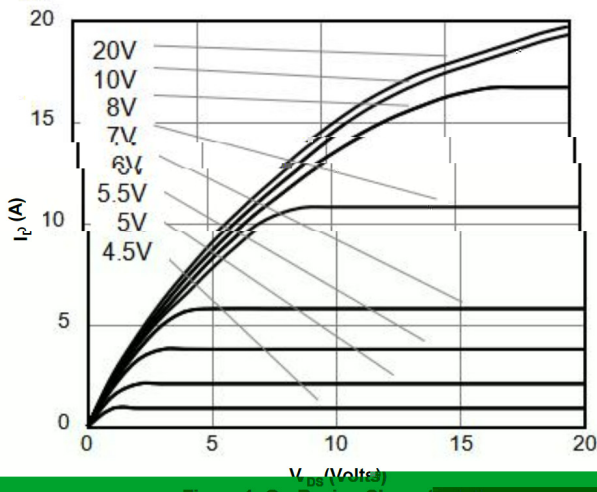


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

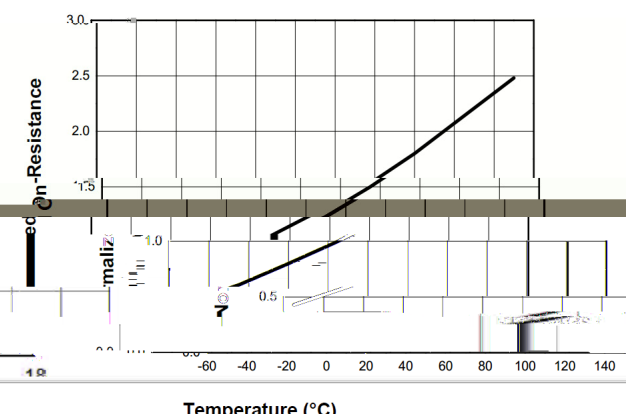


Figure 4: On-Resistance vs. Junction Temperature

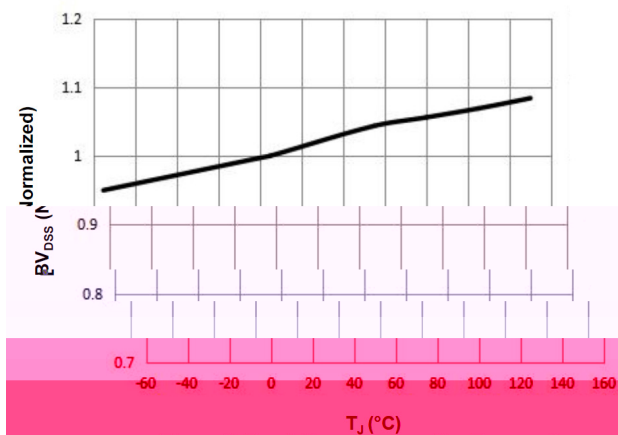


Figure 5: Break Down vs. Junction Temperature

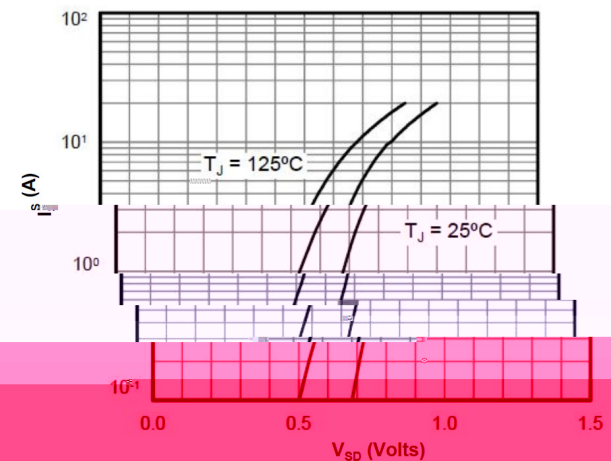


Figure 6: Body-Diode Characteristics

/ Electrical Characteristic Curve

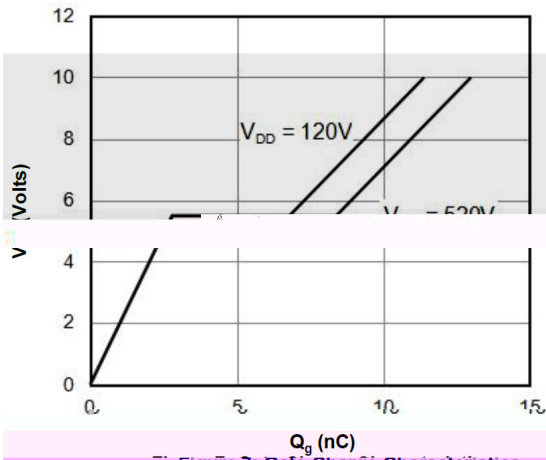


Figure 7: Gate-Charge Characteristics

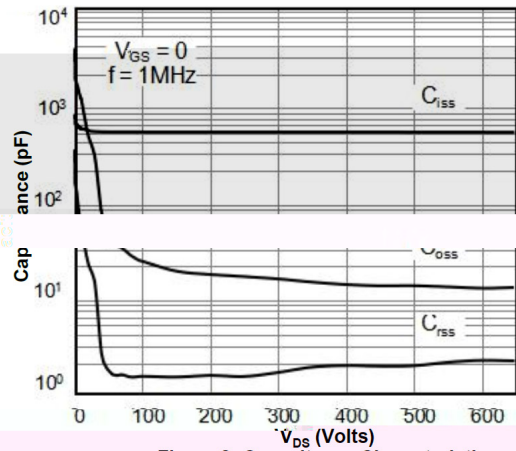
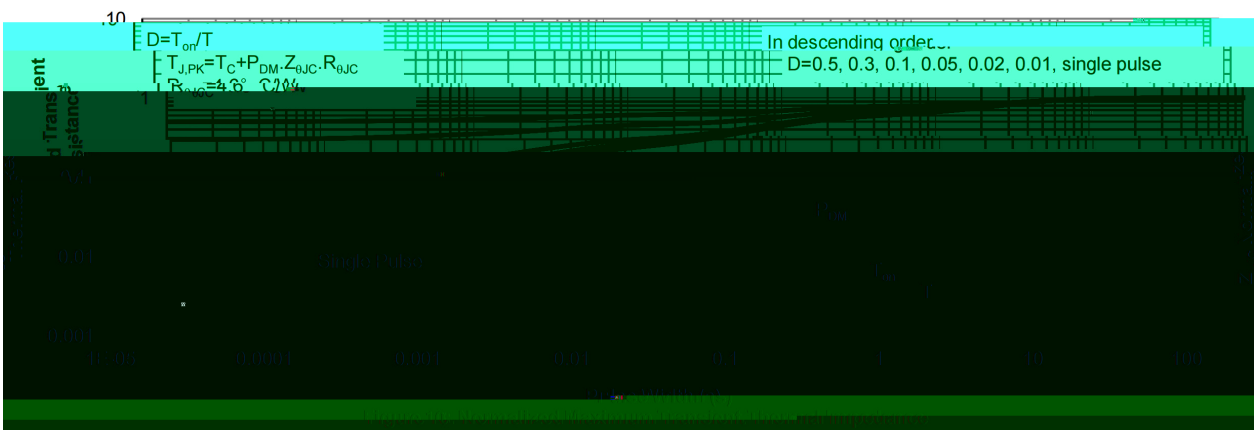
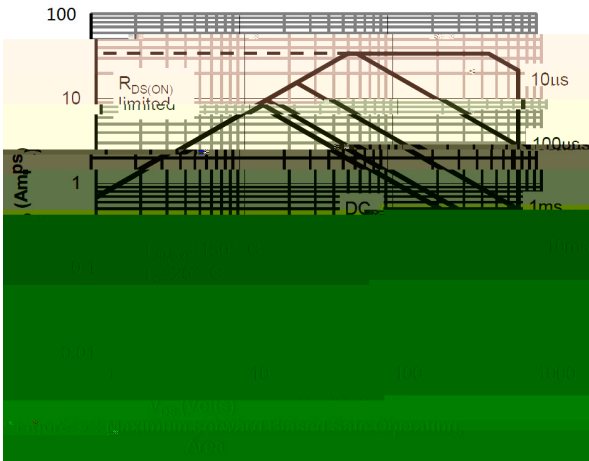
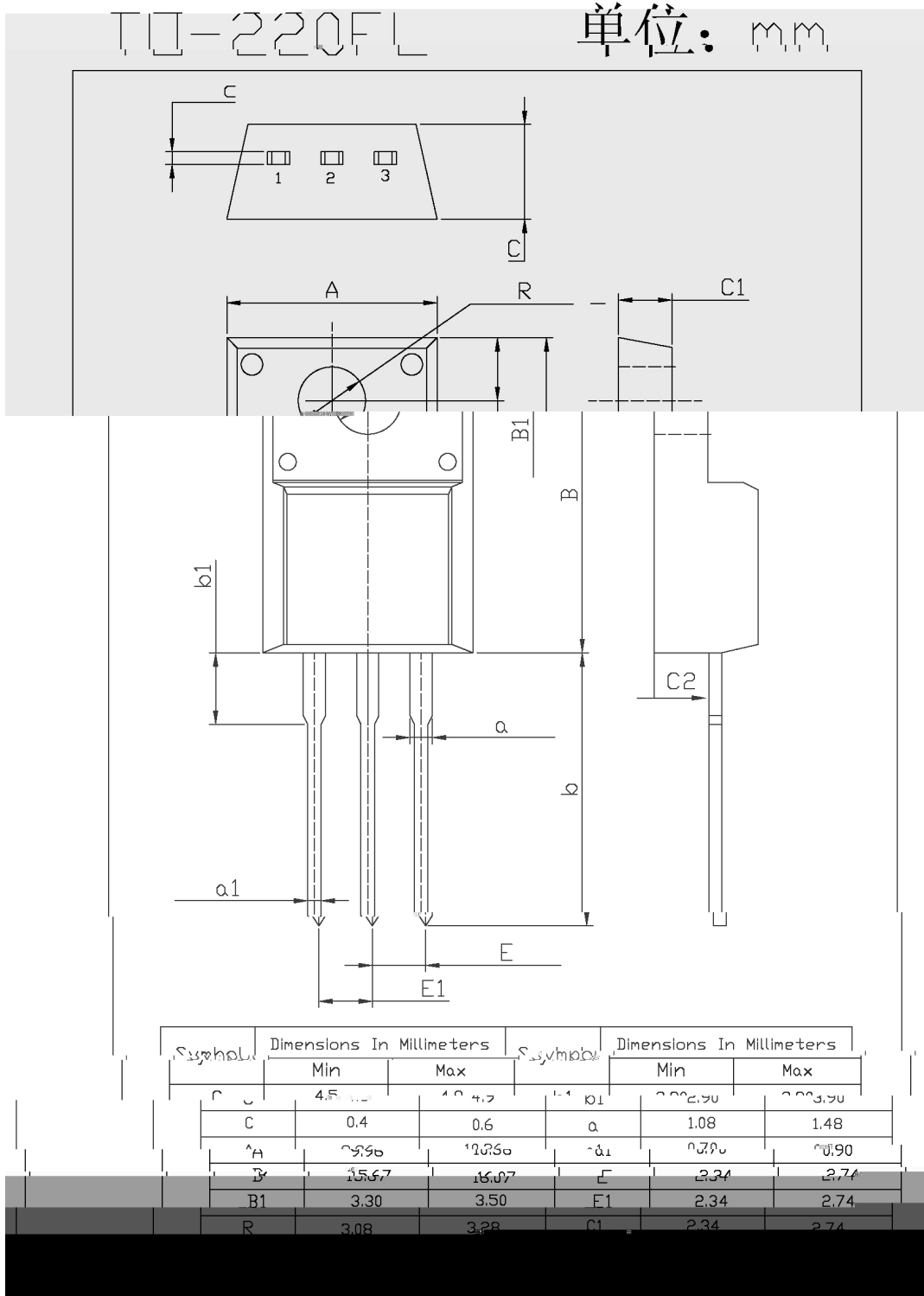


Figure 8: Capacitance Characteristics



/ Package Dimensions



/ Marking Instructions



BR

65R600C

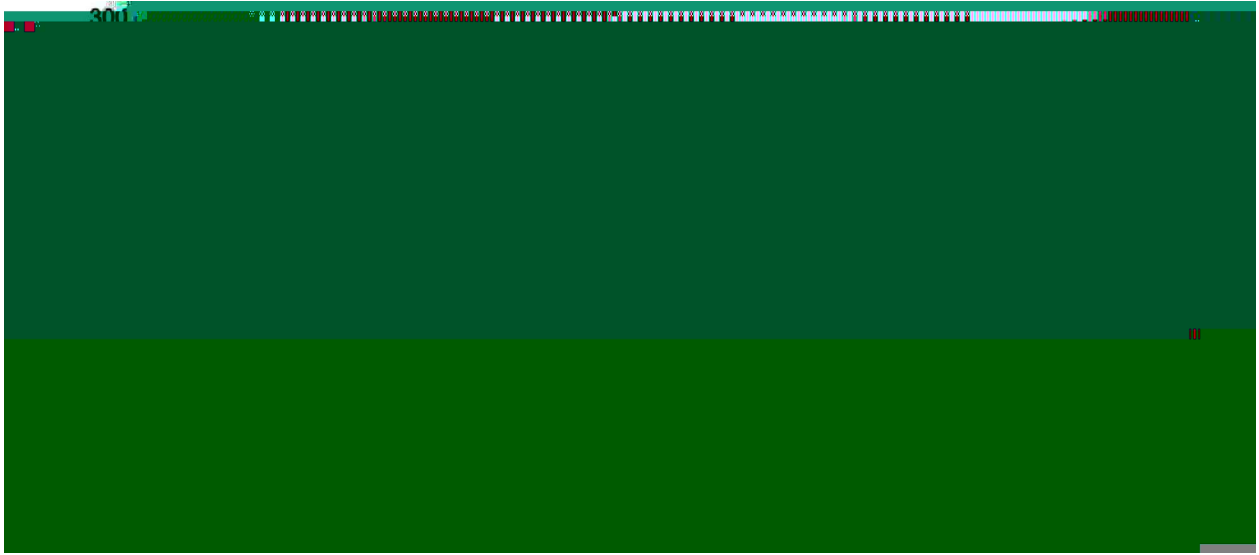
Note:

BR: Company Code

65R600C: Product Type Code

****: 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.

/ 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-220FL | 50 | 20 | 1,000 | 5 | 5,000 | 532×33×7.0 | 555×164×50 | 575×290×180 |

/ Notices