



## N-Channel Enhancement Mode Field Effect Transistor

### Product Summary

|                                     |      |
|-------------------------------------|------|
| Ŕ $V_{DS}$                          | 60V  |
| Ŕ $I_D$                             | 0.3A |
| Ŕ $R_{DS(ON)}$ ( at $V_{GS}=10V$ )  | 2.5q |
| Ŕ $R_{DS(ON)}$ ( at $V_{GS}=4.5V$ ) | 3q   |



## 2N7002KCT

Electrical Characteristics ( $T_J=25$  unless otherwise noted)

| Parameter | Symbol |  |
|-----------|--------|--|
|-----------|--------|--|





## ■ Typical Electrical and Thermal Characteristics Diagrams

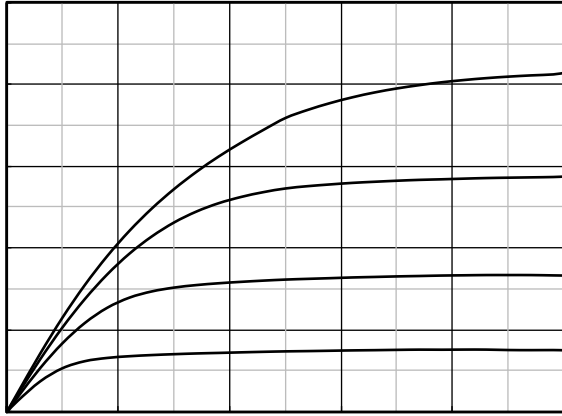


Figure 1. Output Characteristics

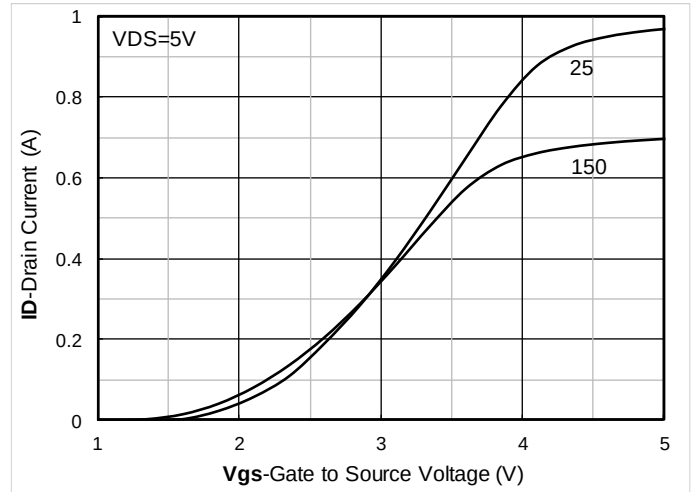


Figure 2. Transfer Characteristics

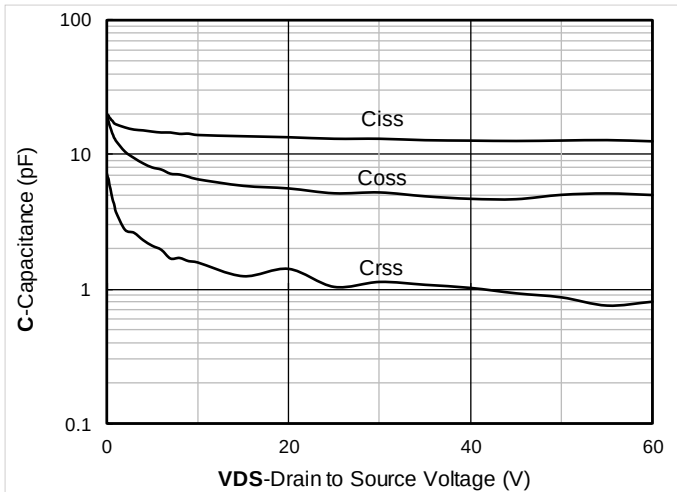


Figure 3. Capacitance Characteristics

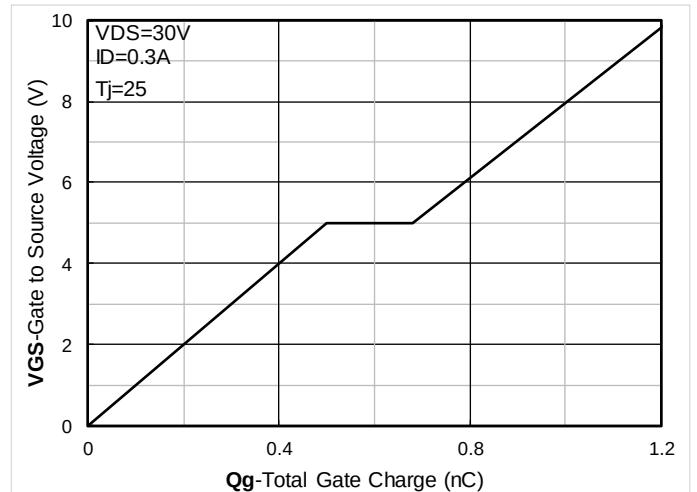


Figure 4. Gate Charge

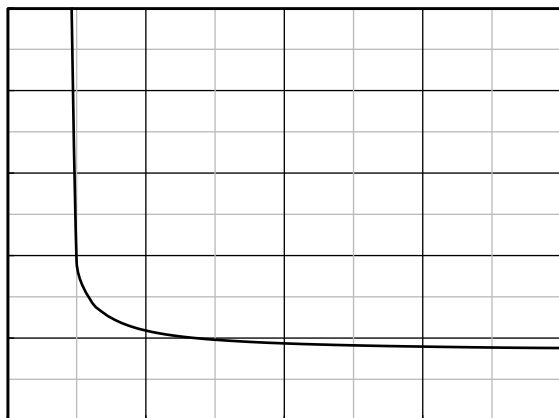


Figure 5. On-Resistance vs Gate to Source Voltage

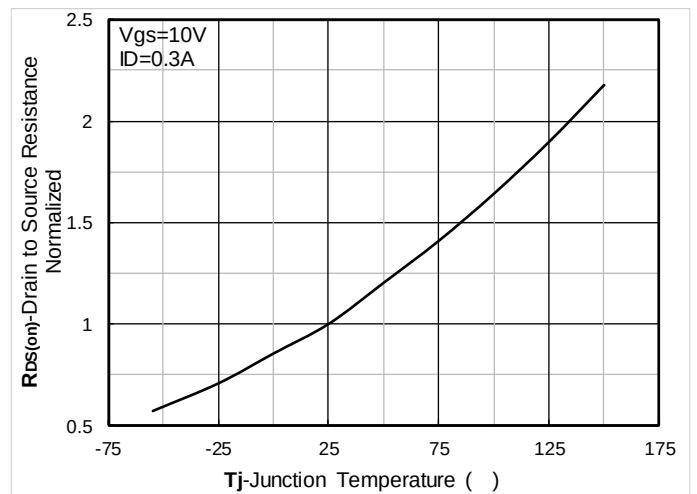


Figure 6. Normalized On-Resistance







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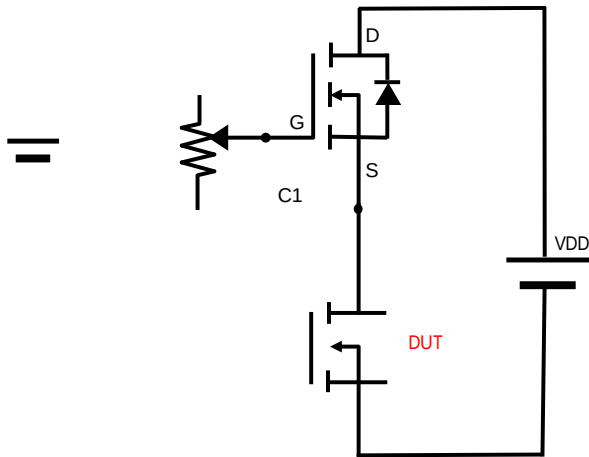


Figure B. Gate Charge Test Circuit & Waveform

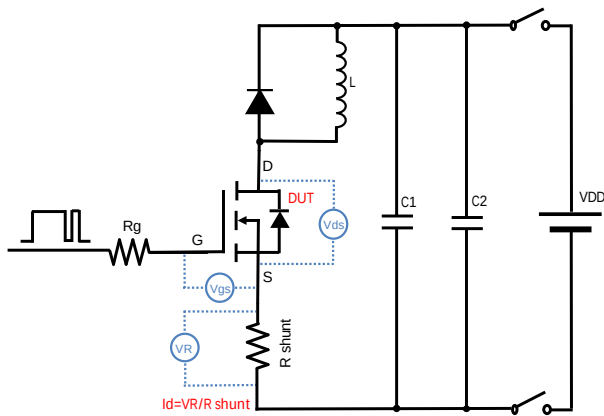


Figure C. Resistive Switching Test Circuit & Waveform

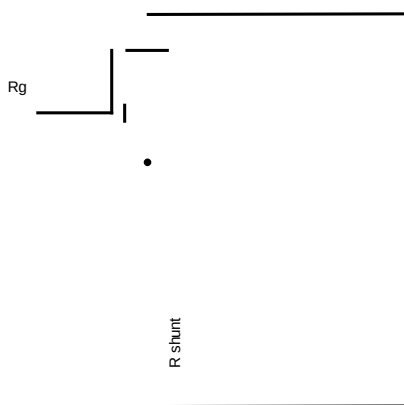
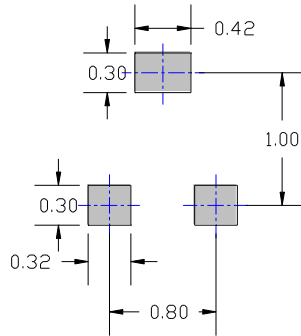
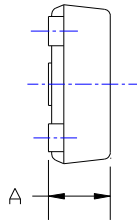
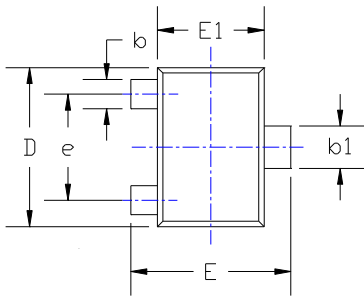


Figure D. Diode Recovery Test Circuit & Waveform



## 2N7002KCT

### ✓ SOT-723 Package information



| SYMBOL | MIN.  |       |  |
|--------|-------|-------|--|
|        | 0.017 | 0.022 |  |
| A1     | 0.000 | 0.002 |  |
|        |       | 0     |  |
| b1     |       |       |  |
| c      |       |       |  |
| D      |       |       |  |
| E1     |       |       |  |
| e      |       |       |  |

**NOTE:**

- 1.PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.
- 2.TOLERANCE 0.1mm UNLESS OTHERWISE SPECIFIED.
- 3.THE PAD LAYOUT IS FOR REFERENCE PURPOSES ONLY.

