

查询 2SK799 供应商

N-CHANNEL MOS FIELD EFFECT POWER TRANSISTOR

98 DE 6427525 0018948 9

2SK799

DESCRIPTION The 2SK799 is N-channel MOS Field Effect Power Transistor designed for switching power supplies, DC-DC converters.

- FEATURES**
- Suitable for switching power supplies, actuator controls, and pulse circuits
 - Low $R_{DS(on)}$
 - No second breakdown

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures

Storage Temperature -55 to +150 °C

Channel Temperature 150 °C Maximum

Maximum Power Dissipation ($T_C = 25\text{ °C}$)

Total Power Dissipation 120 W

Maximum Voltages and Currents ($T_a = 25\text{ °C}$)

V_{DSS} Drain to Source Voltage 450 V

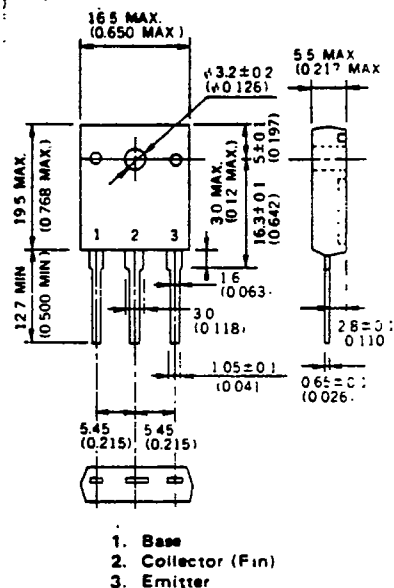
V_{GSS} Gate to Source Voltage ±20 V

$I_{D(DC)}$ Drain Current (DC) ±12 A

$I_{D(pulse)}$ Drain Current (pulse)* ±40 A

* $PW \leq 100\ \mu s$, Duty Cycle $\leq 2\%$

PACKAGE DIMENSIONS
in millimeters (inches)



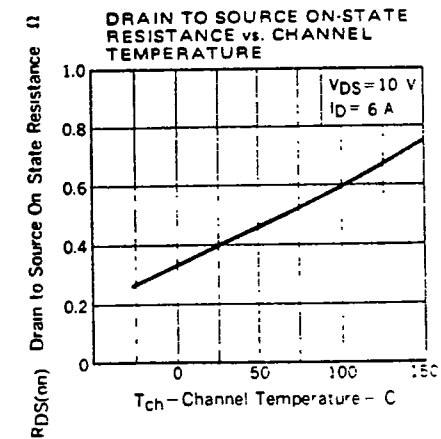
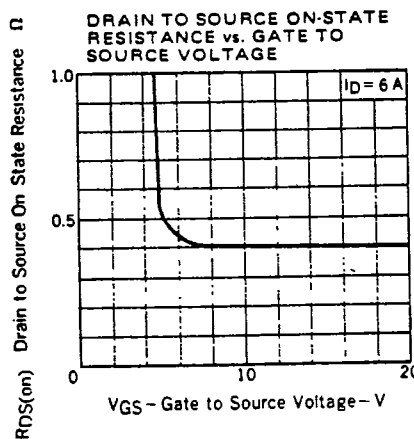
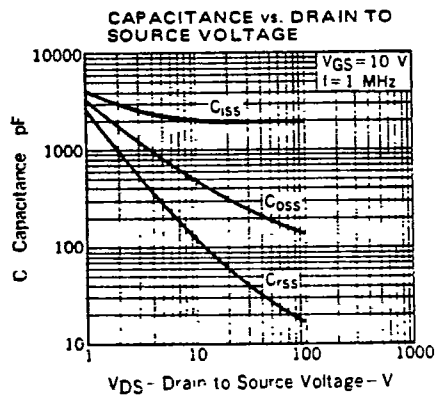
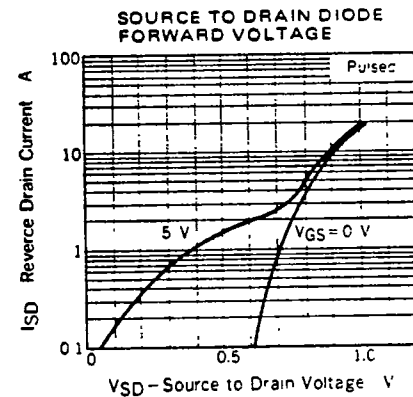
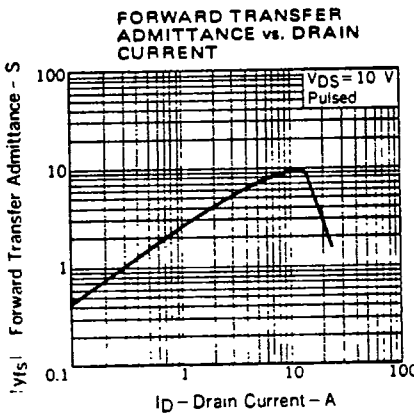
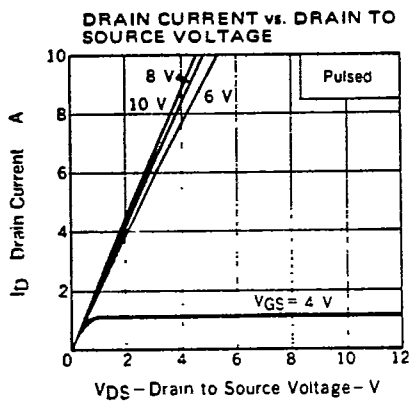
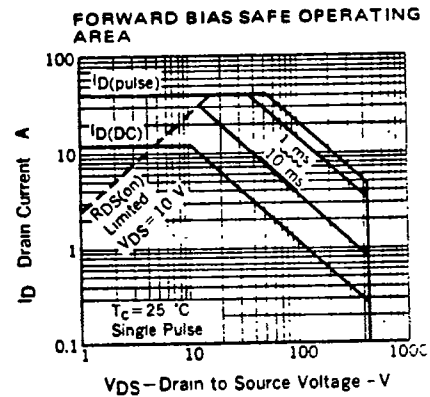
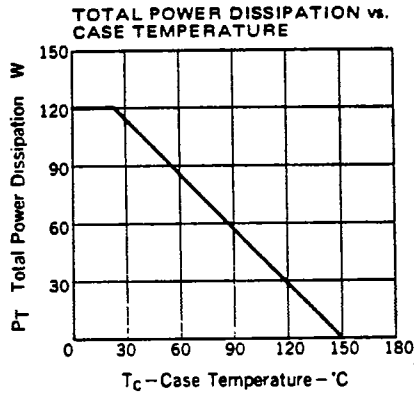
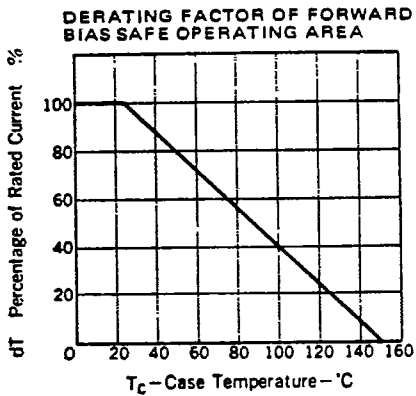
ELECTRICAL CHARACTERISTICS ($T_a = 25\text{ °C}$)

| SYMBOL | CHARACTERISTIC | MIN. | TYP. | MAX. | UNIT | TEST CONDITIONS |
|---------------|-------------------------------------|------|------|------|----------|--|
| I_{DSS} | Drain Leakage Current | | | 100 | μA | $V_{DS} = 450\text{ V}$, $V_{GS} = 0$ |
| I_{GSS} | Gate to Source Leakage Current | | | ±100 | nA | $V_{GS} = \pm 20\text{ V}$, $V_{DS} = 0$ |
| $V_{GS(off)}$ | Gate to Source Cutoff Voltage | 1.5 | | 3.5 | V | $V_{DS} = 10\text{ V}$, $I_D = 1\text{ mA}$ |
| $ y_{fs} $ | Forward Transfer Admittance | 5.0 | | | S | $V_{DS} = 10\text{ V}$, $I_D = 6\text{ A}$ |
| $R_{DS(on)}$ | Drain to Source On-State Resistance | | 0.40 | 0.50 | Ω | $V_{GS} = 10\text{ V}$, $I_D = 6\text{ A}$ |
| C_{iss} | Input Capacitance | | 2000 | | pF | |
| C_{oss} | Output Capacitance | | 500 | | pF | $V_{DS} = 10\text{ V}$, $V_{GS} = 0$, $f = 1\text{ MHz}$ |
| C_{rss} | Reverse Transfer Capacitance | | 140 | | pF | |
| $t_{d(on)}$ | Turn-On Delay Time | | 20 | | ns | |
| t_r | Rise Time | | 35 | | ns | $I_D = 6\text{ A}$, $V_{CC} = 150\text{ V}$ |
| $t_{d(off)}$ | Turn-Off Delay Time | | 100 | | ns | $V_{GS(on)} = 10\text{ V}$ |
| t_f | Fall Time | | 35 | | ns | $R_{in} = 10\ \Omega$ |

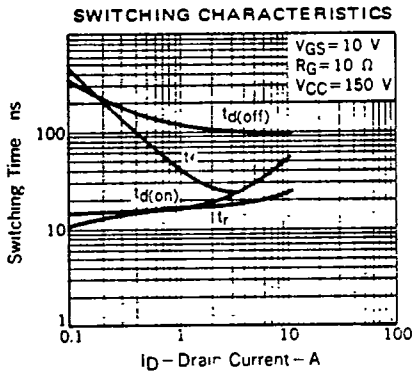
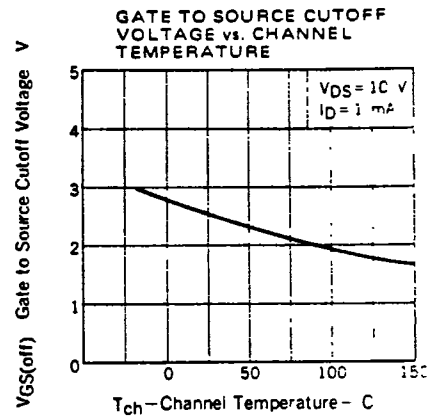
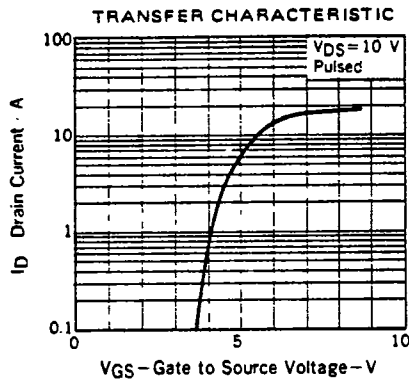
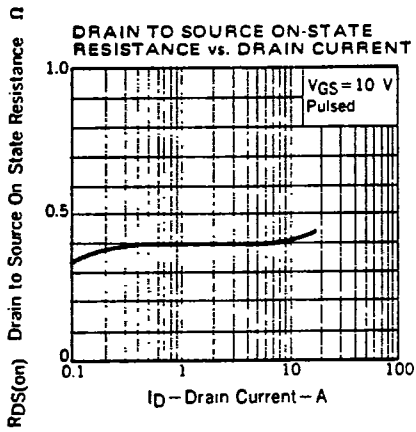
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TYPICAL CHARACTERISTICS ($T_c = 25^\circ\text{C}$)



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SWITCHING TIME TEST CIRCUIT

