

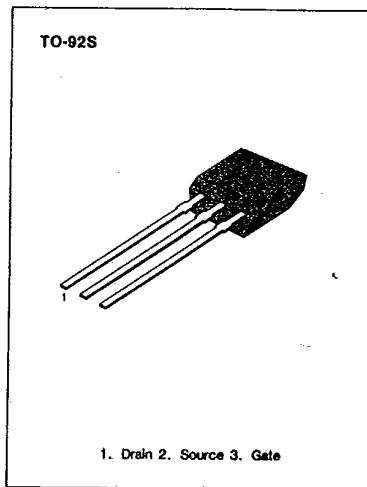
KSK161 SILICON N-CHANNEL JUNCTION FET

FM TUNER VHF AMPLIFIER

- NF = 2.5 dB (TYP)
- |Y_{FS}| = 9.0 mS (TYP)

ABSOLUTE MAXIMUM RATINGS (T_a = 25°C)

| Characteristic | Symbol | Rating | Unit |
|----------------------|------------------|---------|------|
| Gate-Drain Voltage | V _{GDO} | -18 | V |
| Gate Current | I _G | 10 | mA |
| Power Dissipation | P _o | 200 | mW |
| Junction Temperature | T _J | 150 | °C |
| Storage Temperature | T _{stg} | -55~150 | °C |



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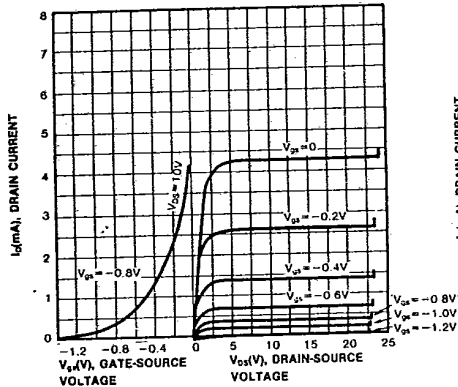
ELECTRICAL CHARACTERISTICS (T_a = 25°C)

| Characteristic | Symbol | Test Condition | Min | Typ | Max | Unit |
|------------------------------|----------------------|--|-----|-----|------|------|
| Gate Cut-off Current | I _{GSS} | V _{GS} = -0.5V, V _{DS} = 0 | | | -10 | nA |
| Gate-Drain Breakdown Voltage | V(BR) _{GDO} | I _G = -100μA, Drain | -18 | | | V |
| Drain Current | I _{DSS} | V _{DS} = 10V, V _{GS} = 0 | 1.0 | | 10 | mA |
| Gate-Source Cut-off Voltage | V _{GS(off)} | V _{DS} = 10V, I _D = 1μA | 0.4 | | 4.0 | V |
| Forward Transfer Admittance | Y _{FS} | V _{DS} = 10V, V _{GS} = 0, f = 1kHz | | 9 | | mS |
| Reverse Transfer Capacitance | C _{rss} | V _{GS} = 10V, f = 1MHz | | | 0.15 | pF |
| Power Gain | C _{PS} | V _{DS} = 10V, f = 100MHz | | 18 | | dB |
| Noise Figure | NF | V _{DS} = 10V, f = 100MHz | | 2.5 | 3.5 | dB |

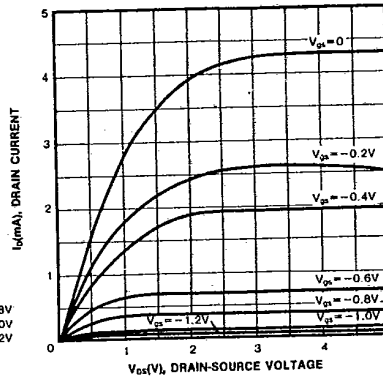
I_{DSS} CLASSIFICATION

| Classification | O | Y | G |
|------------------|---------|---------|--------|
| I _{DSS} | 1.0-3.0 | 2.5-6.0 | 5.0-10 |

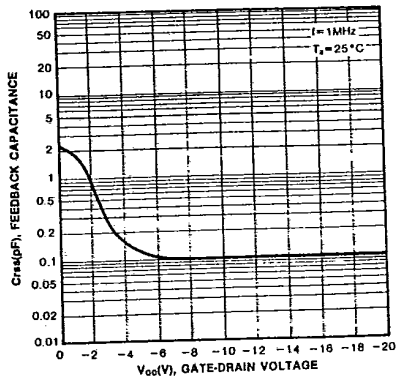
STATIC CHARACTERISTIC



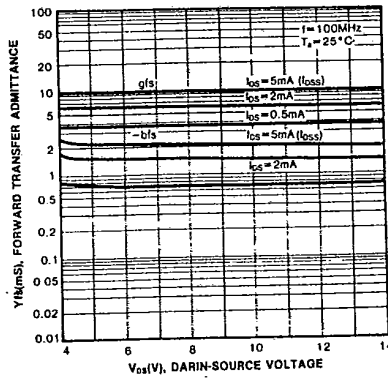
$I_D - V_{DS}$



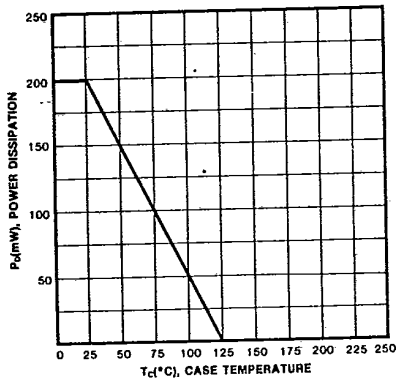
$C_{rss} - V_{DD}$



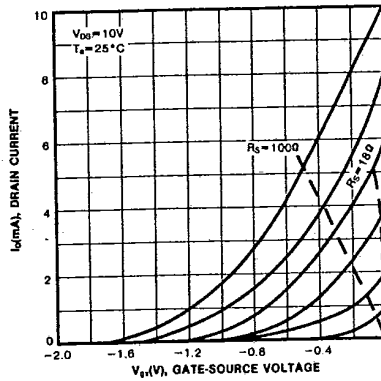
$Y_{fs} - V_{DS}$



POWER DERATING



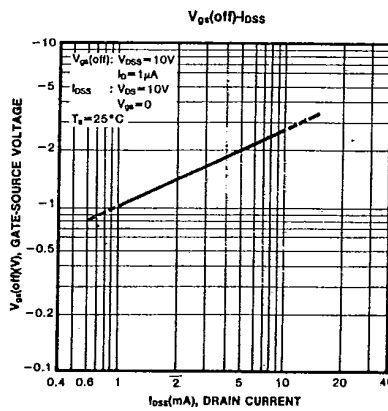
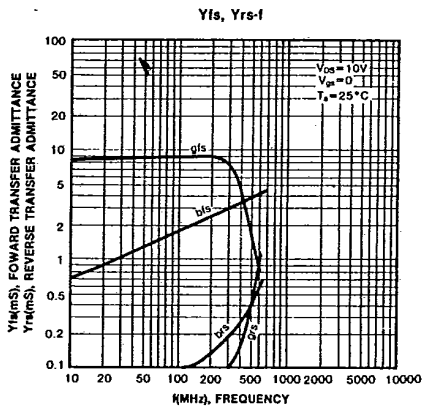
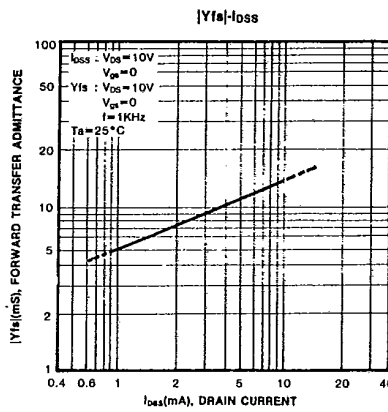
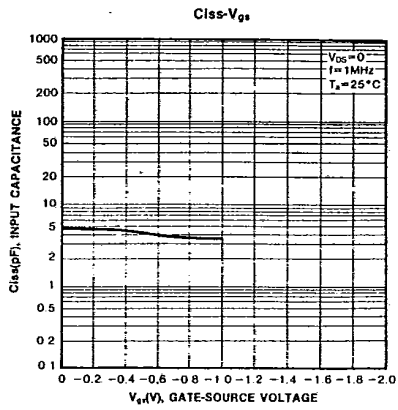
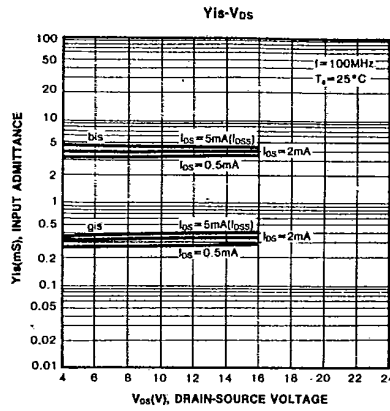
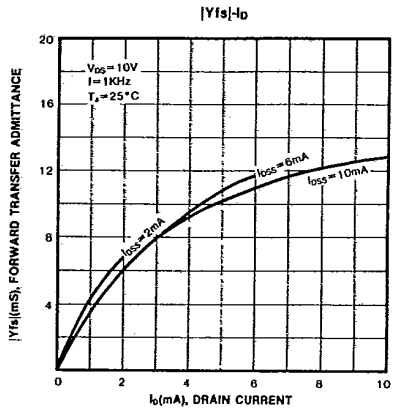
$I_D - V_{GS}$



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T-31-25



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