

FET, IGBT, IPD

■ IPDs (Intelligent Power Device) (continued)

| Application | Type No. | Input Voltage | Output Breakdown Voltage V_{DS} | Output MOS FET | Features | Package | |
|----------------------------------|----------|--------------------------|-----------------------------------|----------------|---|---------|-----|
| | | | | | | No. | |
| Non-insulation type power supply | △MIP403 | 70 to 115V _{AC} | 400V | 25mA (at 5V) | <ul style="list-style-type: none"> ● Over current protection built-in ● Over input-voltage protection built-in ● Over output-voltage protection built-in ● Direct drive with the power supply rectifying the AC current | DIL-8 | D72 |

△ Tentative

| Application | Type No. | Drive Voltage V_{CC} | Output MOS FET | | Oscillation freq. | Package | |
|-------------|----------|------------------------|----------------|---------|-------------------|----------------|-----|
| | | | V_{DSS} | I_D | | No. | |
| EL Driver | MIP803 | 1.5 to 3.5V | 200V | 15/70mA | 140kHz | SSONF-10D Type | D85 |
| | MIP804 | 0.9 to 3.3V | 200V | 10/60mA | 140kHz | SSONF-10D Type | D85 |

| Application | Type No. | Input Voltage V_{IN} | Output Breakdown Voltage V_{DSS}/V_{DS}^* | Output current I_{OA} | Features | Package | |
|-------------|----------|------------------------|---|-------------------------|---|--------------|-----|
| | | | | | | No. | |
| Lamp Driver | MIP501 | 5V | 40V | 1.7A | <ul style="list-style-type: none"> ● Use with power supply of 24V AC ● Over current protection built-in ● Over voltage protection built-in | MT3 Type | D40 |
| | MIP506 | | 42V | | | TO-92NL Type | D48 |
| | MIP502 | 5V | 40V | 1.7A | | | |
| | MIP503 | -0.5 to 6.0V | * 60V | 1A | <ul style="list-style-type: none"> ● Use with power supply of 24V AC/12V DC ● Over voltage, over current, over heat, and load-shorting protection circuits built-in | TO-92NL Type | D48 |
| | MIP504 | | | 2.0A | | | |
| | MIP704 | -0.5 to 6.0V | * 60V | $I_O = -1$ to 2A | <ul style="list-style-type: none"> ● Use with power supply of 24V AC/12V DC ● Over voltage, over current, over heat, load-shorting, and ESD protection circuits built-in ● For car electronics-accessories | TO-92NL Type | D48 |
| | MIP705 | -0.5 to 6.0V | * 60V | $I_O = -1$ to 2A | ● Same function as MIP704 | U Type | D36 |

■ GaAs MES(Metal Semiconductor) FET

● For V/UHF

| Application | Type No. | Absolute Maximum Ratings (Ta = 25 °C) | | | | Electrical Characteristics (Ta = 25 °C) | | | | | | Package | |
|-------------|----------|---------------------------------------|--------------------------|---------------|------------|---|----------------|-------------------|--------------|------------|---------|----------------------|-----|
| | | V_{DS} (V) | V_{G1S} * V_{GS} (V) | V_{G2S} (V) | P_D (mW) | PG typ (dB) | NF typ (dB) | PG, NF Conditions | | | | | |
| | | | | | | | | V_{DS} (V) | V_{G2} (V) | I_D (mA) | f (GHz) | No. | |
| UHF RF | 3SK241 | 13 | -6 | -6 | 200 | 19 | 1.5 | 5 | 1.5 | 10 | 0.8 | Mini Type (4 pins) | D13 |
| | 3SK272 | 13 | -6 | -6 | 150 | 16 | 1.8 | 5 | 1.5 | 10 | 0.8 | S-Mini Type (4 pins) | D6 |
| | 3SK273 | 13 | -6 | -6 | 200 | 16 | 1.8 | 5 | 1.5 | 10 | 0.8 | S-Mini Type (4 pins) | D6 |
| | 3SK287 | 13 | -6 | -6 | 200 | 13 | 2.1 | 5 | 1.5 | 10 | 0.8 | Mini Type (4 pins) | D13 |
| | 3SK282 | 10 | -6 | -6 | 200 | 17 | 1.6 | 5 | 1.5 | 10 | 0.8 | Mini Type (4 pins) | D13 |
| Power Amp. | 2SK690 | 10 | * -6 | - | 1W | 15 | $P_O = 25$ dBm | 6 | - | 100 | 1 | Mini-Power Type | D19 |