

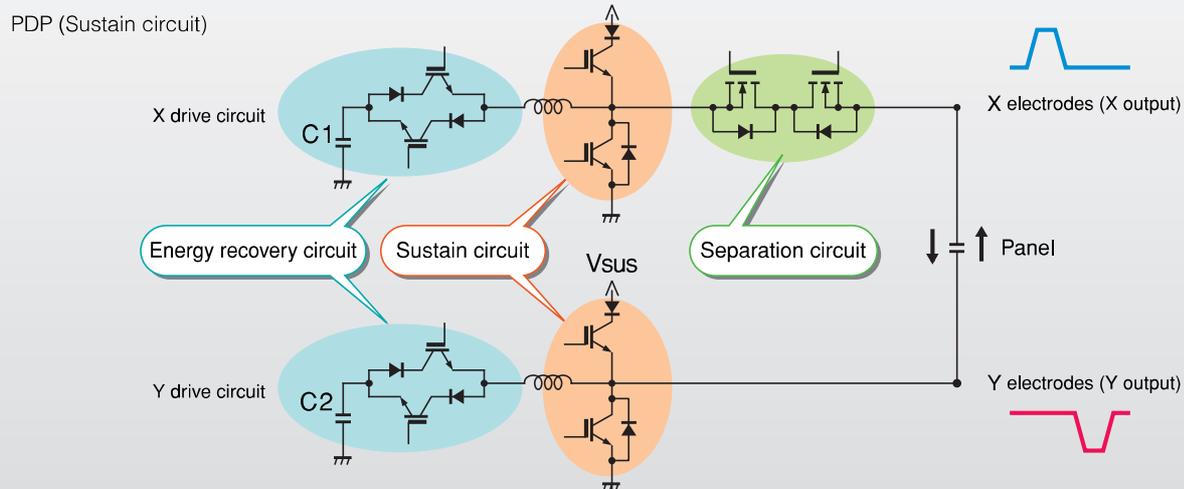
# 5-4 Plasma Display Panel Applications

## Plasma Displays

Parallel MOSFETs have been used for the drive circuitry of plasma display panels (PDPs). Recently, however, IGBTs are commonly used in large current applications due to their superior current conduction capability.



### Example of a Plasma Display Panel Drive Circuit



## Product List

► For plasma display panels

### 300-V IGBTs

| Part Number | $V_{CES} / I_{cp} @ 3 \mu s$ | $V_{CE(sat)} (V) \text{ Max}$ | $P_c (W) @ T_c = 25^\circ C$ | Package   | Remarks        |
|-------------|------------------------------|-------------------------------|------------------------------|-----------|----------------|
| GT30F122    | 300 V / 120 A*               | 2.9 (@120 A)                  | 25                           | TO-220SIS | 5th generation |
| GT30F123    | 300 V / 200 A                | 2.1 (@120 A)                  | 25                           | TO-220SIS | 6th generation |
| GT45F122    | 300 V / 200 A                | 2.7 (@120 A)                  | 25                           | TO-220SIS | 5th generation |
| GT45F123    | 300 V / 200 A                | 2.4 (@120 A)                  | 26                           | TO-220SIS | 5th generation |
| GT45F124    | 300 V / 200 A                | 2.1 (@120 A)                  | 29                           | TO-220SIS | 5th generation |
| GT45F125    | 300 V / 200 A                | 1.45 (@120 A)                 | 29                           | TO-220SIS | 5th generation |
| GT45F127    | 300 V / 200 A                | 1.6 (@120 A)                  | 26                           | TO-220SIS | 6th generation |
| GT45F131    | 300 V / 200 A                | 2.1 (@120 A)                  | 160                          | TO-220SM  | 5th generation |

\*: @100  $\mu s$

### 400-V IGBTs

| Part Number | $V_{CES} / I_{cp} @ 3 \mu s$ | $V_{CE(sat)} (V) \text{ Max}$ | $P_c (W) @ T_c = 25^\circ C$ | Package   | Remarks        |
|-------------|------------------------------|-------------------------------|------------------------------|-----------|----------------|
| GT30G122    | 400 V / 120 A*               | 2.6 (@120 A)                  | 25                           | TO-220SIS | 5th generation |
| GT30G123    | 430 V / 200 A                | 2.2 (@120 A)                  | 25                           | TO-220SIS | 6th generation |
| GT45G122    | 400 V / 200 A                | 2.9 (@120 A)                  | 25                           | TO-220SIS | 5th generation |
| GT45G123    | 400 V / 200 A                | 2.6 (@120 A)                  | 26                           | TO-220SIS | 5th generation |
| GT45G124    | 400 V / 200 A                | 2.3 (@120 A)                  | 29                           | TO-220SIS | 5th generation |
| GT45G125    | 400 V / 200 A                | 1.6 (@120 A)                  | 29                           | TO-220SIS | 5th generation |
| GT45G127    | 430 V / 200 A                | 1.7 (@120 A)                  | 26                           | TO-220SIS | 6th generation |
| GT45G131    | 400 V / 200 A                | 2.3 (@120 A)                  | 160                          | TO-220SM  | 5th generation |

\*: @100  $\mu s$

### 600-V IGBTs

| Part Number | $V_{CES} / I_{cp} @ 3 \mu s$ | $V_{CE(sat)} (V) \text{ Max}$ | $P_c (W) @ T_a = 25^\circ C$ | Package   | Remarks        |
|-------------|------------------------------|-------------------------------|------------------------------|-----------|----------------|
| GT30J124    | 600 V / 200 A                | 2.4 (@120 A)                  | 26                           | TO-220SIS | 5th generation |