# MA142WK

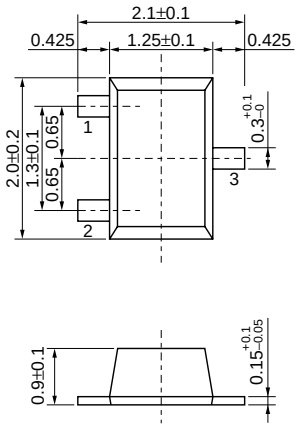
## Silicon epitaxial planer type

For switching circuits

### ■ Features

- Small S-Mini type package with two incorporated elements, enabling high-density mounting
- Short reverse recovery period $t_{rr}$
- Small capacity between pins, $C_t$

Unit : mm




1 : Anode 1
2 : Cathode 2
3 : Cathode 1
Anode 2
Flat S-Mini Type Package (3-pin)

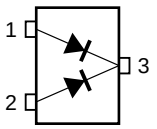
Marking Symbol : MU

### ■ Absolute Maximum Ratings (Ta= 25˚C)

| Parameter | | Symbol | Rating | Unit |
|---|---|---|---|---|
| Reverse voltage (DC) | | $V_R$ | 80 | V |
| Peak reverse voltage | | $V_{RM}$ | 80 | V |
| Forward current (DC) | Single | $I_F$ | 100 | mA |
| | Double | | 150 | |
| Peak forward current | Single | $I_{FM}$ | 225 | mA |
| | Double | | 340 | |
| Non-repetitive peak forward surge current | Single | $I_{FSM}$ * | 500 | mA |
| | Double | | 750 | |
| Junction temperature | | $T_j$ | 150 | ˚C |
| Storage temperature | | $T_{stg}$ | – 55 to +150 | ˚C |

* t=1s

### ■ Internal Connection

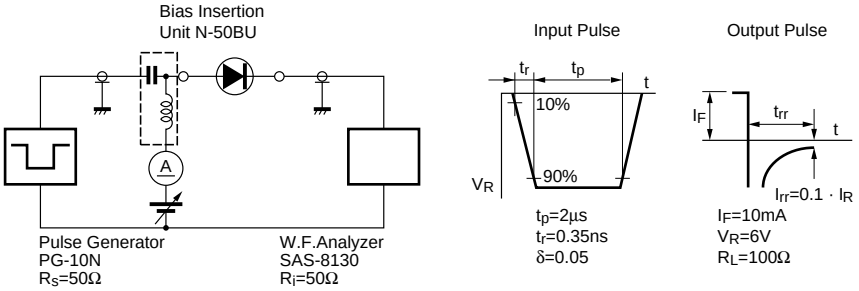



### ■ Electrical Characteristics (Ta= 25˚C)

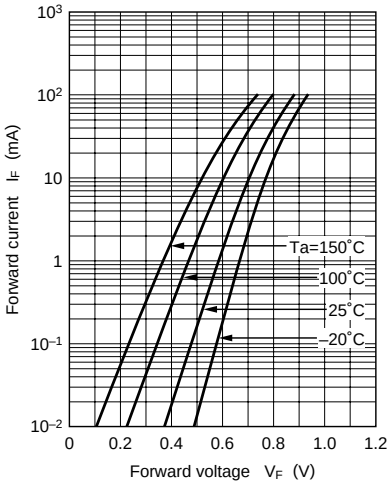
| Parameter | Symbol | Condition | min | typ | max | Unit |
|---|---|---|---|---|---|---|
| Reverse current (DC) | $I_R$ | $V_R$= 75V | | | 100 | nA |
| Forward voltage (DC) | $V_F$ | $I_F$=100mA | | | 1.2 | V |
| Reverse voltage (DC) | $V_R$ | $I_R$=100µA | 80 | | | V |
| Terminal capacitance | $C_t$ | $V_R$= 0V, f=1MHz | | | 2 | pF |
| Reverse recovery time | $t_{rr}$ * | $I_F$=10mA, $V_R$= 6V<br>$I_{rr}$= 0.1 · $I_R$, $R_L$=100Ω | | | 3 | ns |

Note 1 : Rated input/output frequency : 100MHz
2 : * $t_{rr}$ measuring circuit

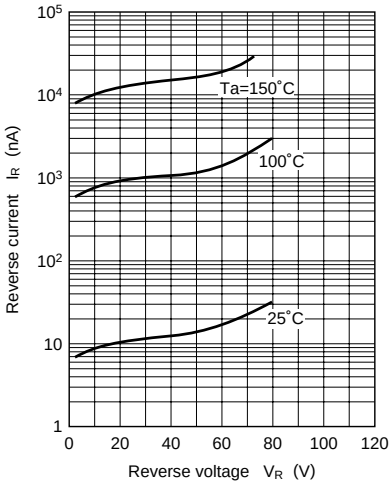
### ■ Marking

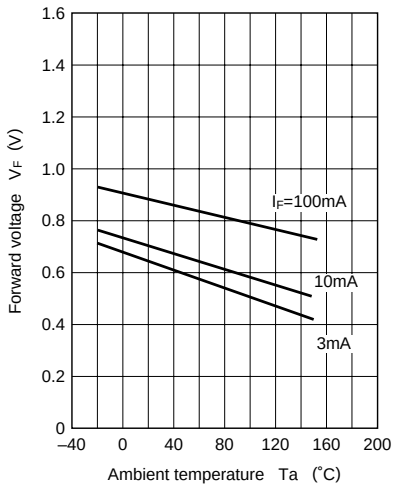
$I_F - V_F$



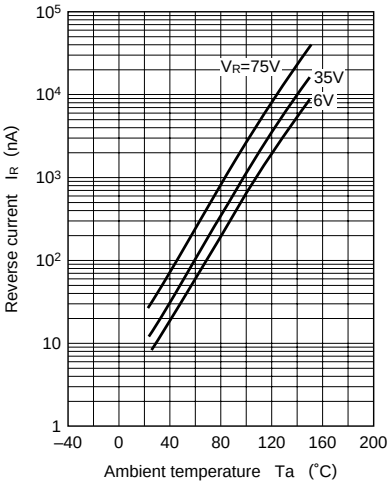

$I_R - V_R$



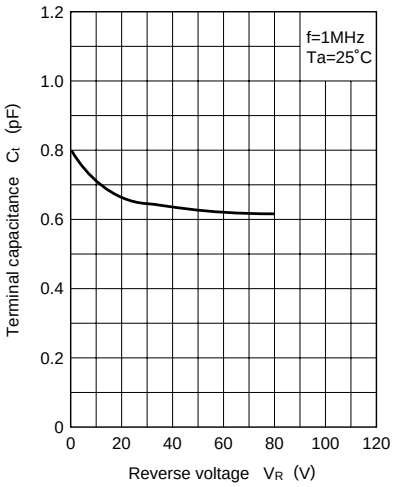

$V_F - Ta$




$I_R - Ta$




$C_t - V_R$




$I_{F\,(surge)} - t_W$