

**SANYO**

No.2818A

**DLE30**

Silicon Diffused Junction Type

**3.0A Ultrahigh-Speed Rectifier****Applications**

- Switching regulator, high-frequency rectification.

**Features**

- Fast reverse recovery time and small switching loss.
- Reverse voltage  $V_{RM} = 100$  to  $400V$ .
- Average rectified current :  $I_O = 3.0A$ .

**Absolute Maximum Ratings at  $T_a = 25^\circ C$** 

|                           |           | DLE30B                                           | DLE30C | DLE30E      | unit       |
|---------------------------|-----------|--------------------------------------------------|--------|-------------|------------|
| Peak Reverse Voltage      | $V_{RM}$  | 100                                              | 200    | 400         | V          |
| Average Rectified Current | $I_O$     | 50Hz, resistive load, no fin, $T_a = 29^\circ C$ |        |             | →          |
|                           |           | 50Hz, resistive load, $T_a = 25^\circ C$         |        |             | →          |
|                           |           | (With $20 \times 20 \times 1.0$ mm Al fin)       |        |             | 1.5 A      |
|                           |           |                                                  |        |             | 3.0 A      |
| Surge Forward Current     | $I_{FSM}$ | →                                                | →      | 60          | A          |
| Junction Temperature      | $T_j$     | →                                                | →      | 150         | $^\circ C$ |
| Storage Temperature       | $T_{stg}$ | →                                                | →      | -40 to +150 | $^\circ C$ |

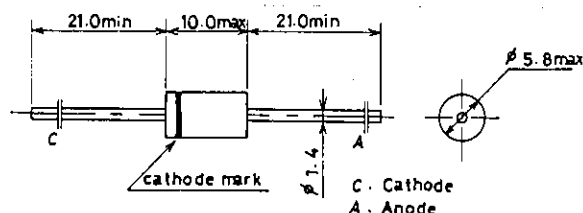
**Electrical Characteristics [DLE30B,C] at  $T_a = 25^\circ C$** 

|                                          |               |                                   | min | typ | max  | unit         |
|------------------------------------------|---------------|-----------------------------------|-----|-----|------|--------------|
| Forward Voltage                          | $V_F$         | $I_F = 3.0A$                      |     |     | 0.98 | V            |
| Reverse Current                          | $I_R$         | $V_R$ : Each $V_{RM}$             |     |     | 10   | $\mu A$      |
| Reverse Recovery Time                    | $t_{rr}$      | $I_{FM} = 1A, -di/dt = 50A/\mu s$ |     |     | 35   | ns           |
| Thermal Resistance<br>(Junction-Ambient) | $R_{th(j-a)}$ | No fin, DLE30 only                |     |     | 80   | $^\circ C/W$ |

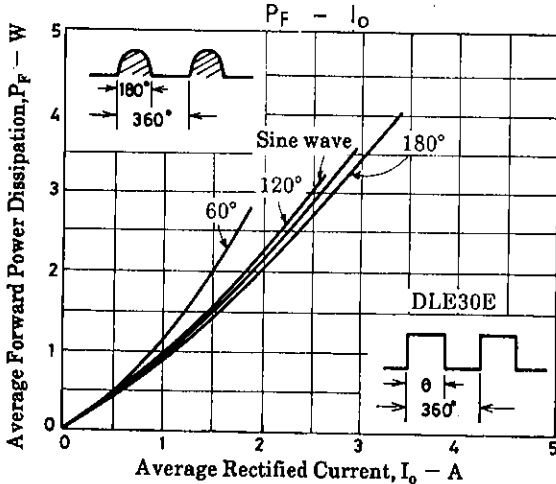
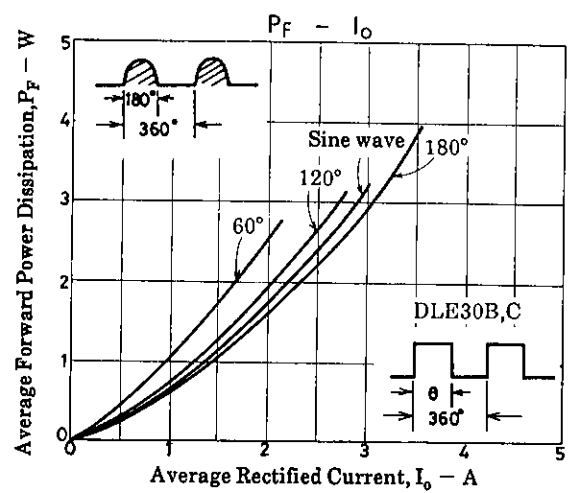
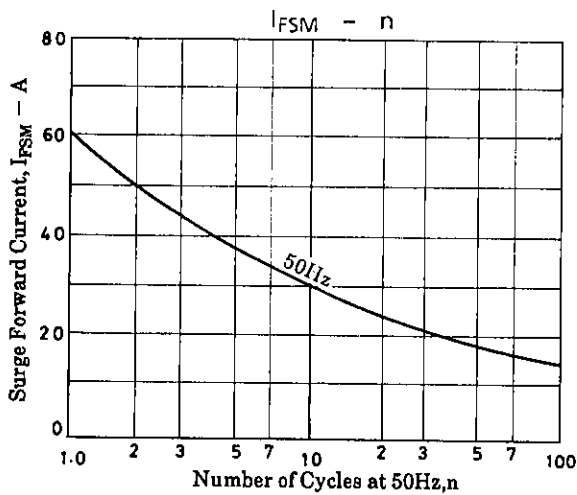
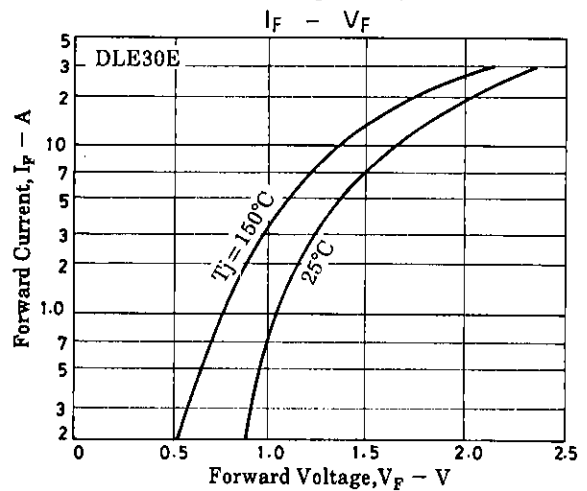
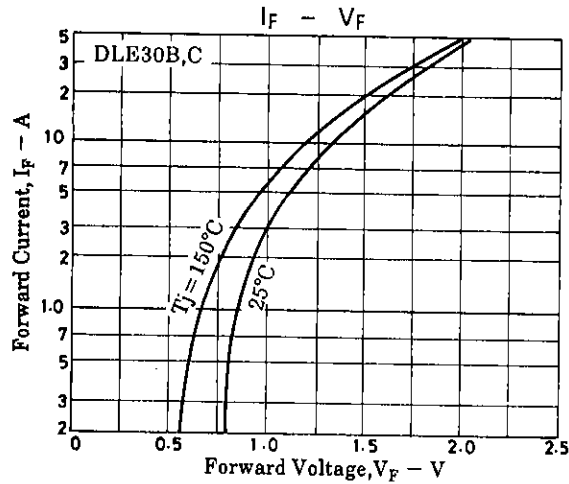
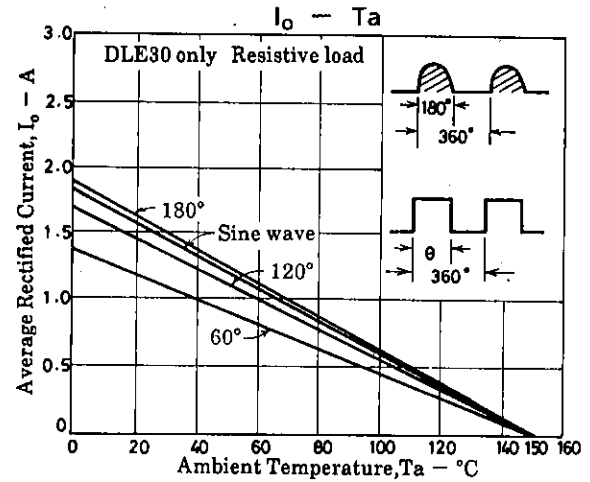
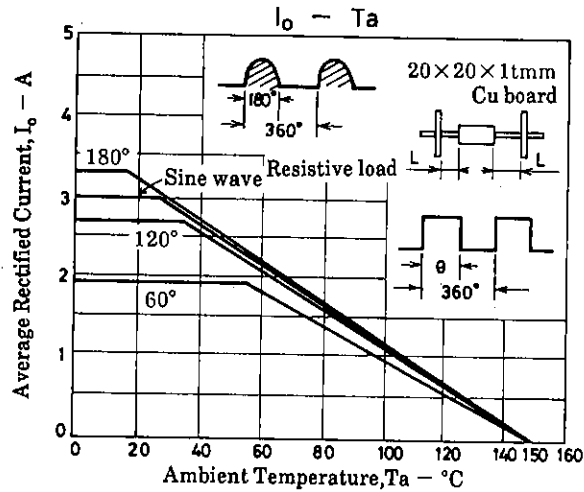
**Electrical Characteristics [DLE30E] at  $T_a = 25^\circ C$** 

|                                          |               |                                   | min | typ | max  | unit         |
|------------------------------------------|---------------|-----------------------------------|-----|-----|------|--------------|
| Forward Voltage                          | $V_F$         | $I_F = 1.0A$                      |     |     | 1.25 | V            |
| Reverse Current                          | $I_R$         | $V_{RM} = 400V$                   |     |     | 20   | $\mu A$      |
| Reverse Recovery Time                    | $t_{rr}$      | $I_{FM} = 1A, -di/dt = 50A/\mu s$ |     |     | 30   | ns           |
| Thermal Resistance<br>(Junction-Ambient) | $R_{th(j-a)}$ | No fin, DLE30 only                |     |     | 80   | $^\circ C/W$ |

Note) The Al fin is mounted on each lead at the point 5mm of the resin.

**Package Dimensions 1193**  
(unit : mm)

# DLE30



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