

TOSHIBA HIGH EFFICIENCY DIODE STACK (HED) SILICON EPITAXIAL TYPE

20DL2CZ51A, 20FL2CZ51A

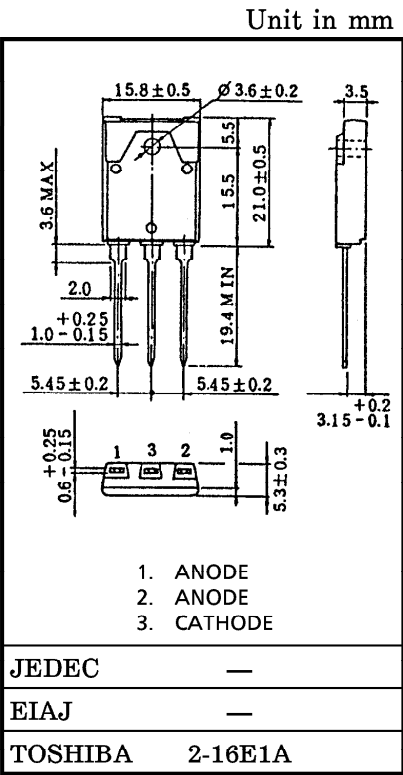
SWITCHING TYPE POWER SUPPLY APPLICATION.

CONVERTER & CHOPPER APPLICATION.

- Repetitive Peak Reverse Voltage :  $V_{RRM}=200, 300V$
- Average Output Rectified Current :  $I_O=20A$
- Ultra Fast Reverse-Recovery Time :  $t_{rr}=35ns$  MAX.
- Low Switching Losses and Output Noise.

MAXIMUM RATINGS

| CHARACTERISTIC                                   |            | SYMBOL           | RATING     | UNIT |
|--------------------------------------------------|------------|------------------|------------|------|
| Repetitive Peak Reverse Voltage                  | 20DL2CZ51A | V <sub>RRM</sub> | 200        | A    |
|                                                  | 20FL2CZ51A |                  | 300        |      |
| Average Output Rectified Current                 |            | I <sub>O</sub>   | 20         | A    |
| Peak One Cycle Surge Forward Current (Sine Wave) |            | I <sub>FSM</sub> | 100 (50Hz) | A    |
|                                                  |            |                  | 110 (60Hz) |      |
| Junction Temperature                             |            | T <sub>j</sub>   | −40~150    | °C   |
| Storage Temperature Range                        |            | T <sub>stg</sub> | −40~150    | °C   |



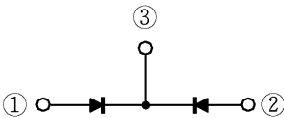
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

Weight : 5.9g

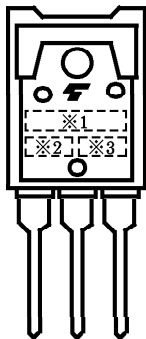
| CHARACTERISTIC                  |            | SYMBOL        | TEST CONDITION                | MIN. | TYP. | MAX. | UNIT    |
|---------------------------------|------------|---------------|-------------------------------|------|------|------|---------|
| Peak Forward Voltage            | 20DL2CZ51A | $V_{FM}$      | $I_{FM}=10A$                  | —    | —    | 0.98 | V       |
|                                 | 20FL2CZ51A |               |                               | —    | —    | 1.3  |         |
| Repetitive Peak Reverse Current |            | $I_{RRM}$     | $V_{RRM}=\text{Rated}$        | —    | —    | 50   | $\mu A$ |
| Reverse Recovery time           |            | $t_{rr}$      | $I_{FM}=2A, di/dt=-50A/\mu s$ | —    | —    | 35   | ns      |
| Forward Recovery time           |            | $t_{fr}$      | $I_F=1A$                      | —    | —    | 100  | ns      |
| Thermal Resistance              |            | $R_{th(j-c)}$ | DC Total, Junction to Case    | —    | —    | 2.0  | °C/W    |

$V_{FM}, I_{RRM}, t_{rr}, t_{fr}$  : A value of one cell.

POLARITY



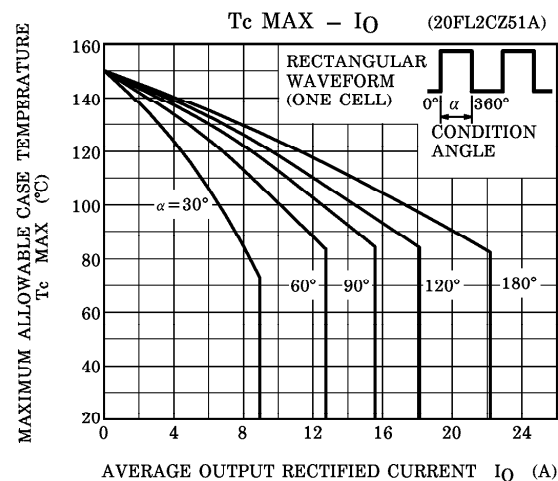
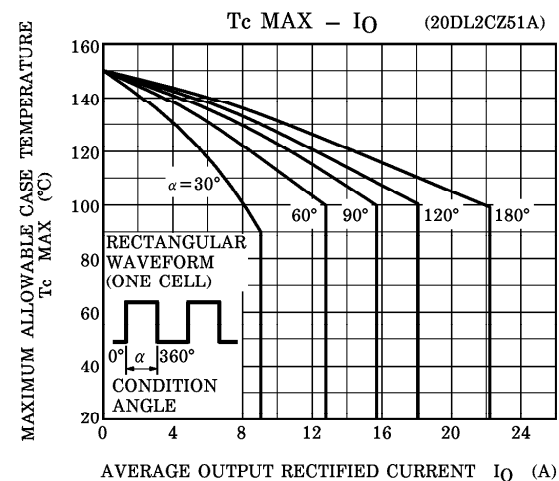
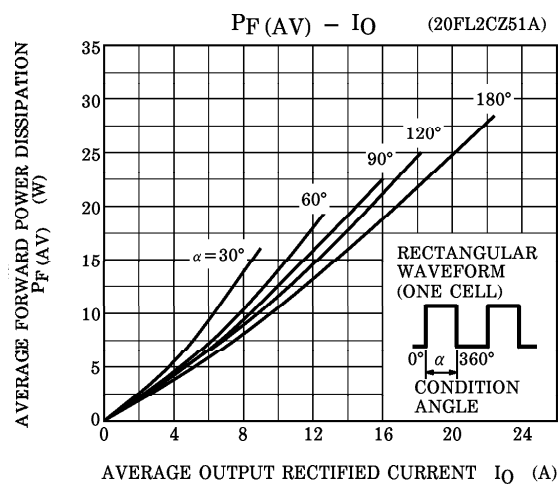
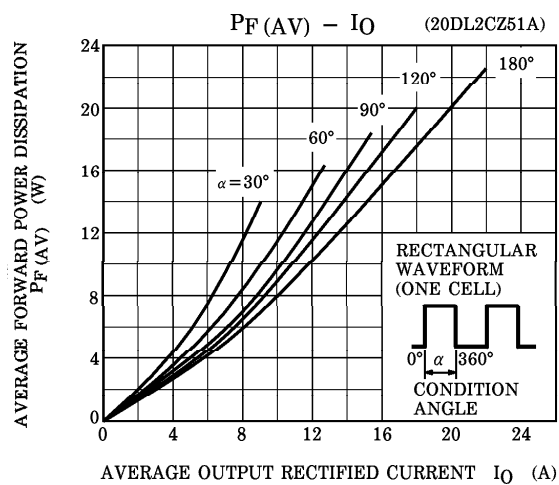
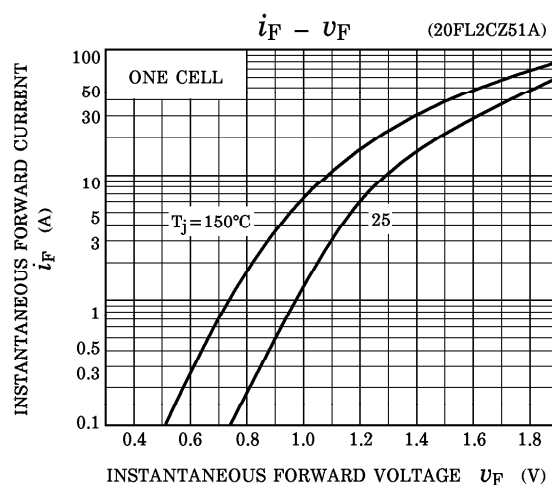
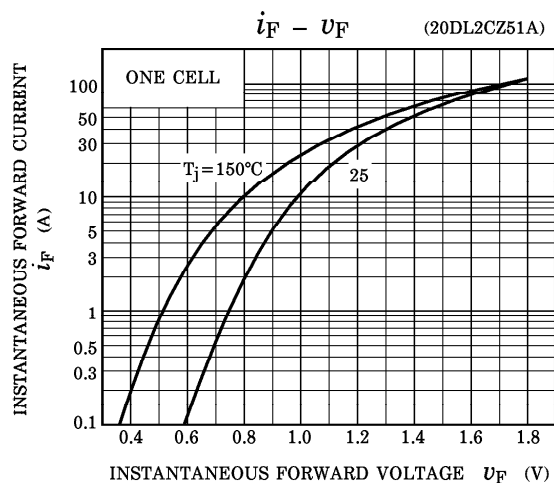
MARKING



|    |                                              |                    |      |                          |
|----|----------------------------------------------|--------------------|------|--------------------------|
| ※1 | MARK                                         | 20DL2CZ<br>20FL2CZ | TYPE | 20DL2CZ51A<br>20FL2CZ51A |
| ※2 | A                                            |                    |      |                          |
| ※3 | Lot Number                                   |                    |      |                          |
|    | □□ ← Month (Starting from Alphabet A)        |                    |      |                          |
|    | □□ ← Year (Last Number of the Christian Era) |                    |      |                          |

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