

TOSHIBA HIGH EFFICIENCY DIODE STACK (HED) SILICON EPITAXIAL TYPE

20DL2CZ51A, 20FL2CZ51A

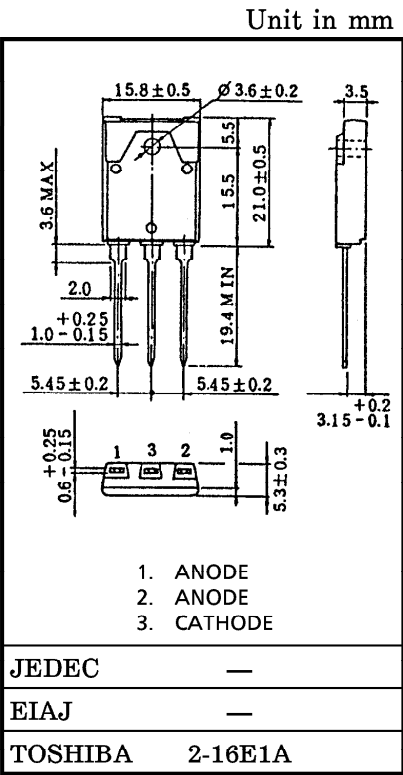
SWITCHING TYPE POWER SUPPLY APPLICATION.

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 _{RRM}	200	A
	20FL2CZ51A		300	
Average Output Rectified Current		I _O	20	A
Peak One Cycle Surge Forward Current (Sine Wave)		I _{FSM}	100 (50Hz)	A
			110 (60Hz)	
Junction Temperature		T _j	−40~150	°C
Storage Temperature Range		T _{stg}	−40~150	°C



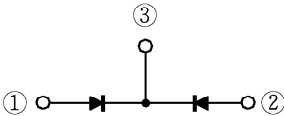
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

Weight : 5.9g

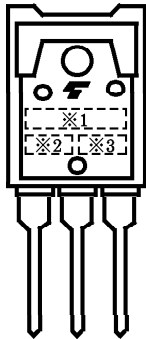
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Peak Forward Voltage	20DL2CZ51A	V_{FM}	$I_{FM}=10A$	—	—	0.98	V
	20FL2CZ51A			—	—	1.3	
Repetitive Peak Reverse Current		I_{RRM}	$V_{RRM}=\text{Rated}$	—	—	50	μA
Reverse Recovery time		t_{rr}	$I_{FM}=2A, di/dt=-50A/\mu s$	—	—	35	ns
Forward Recovery 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



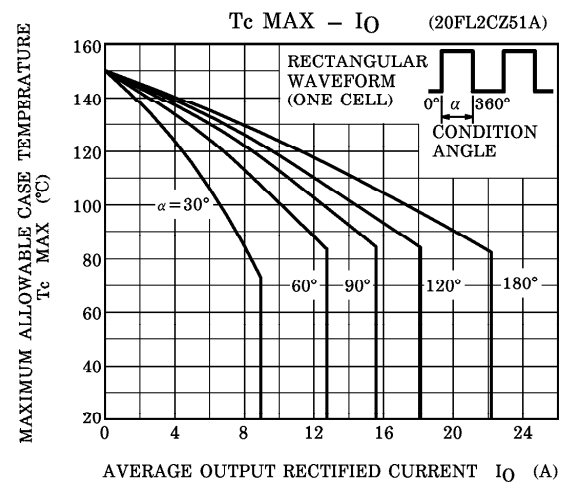
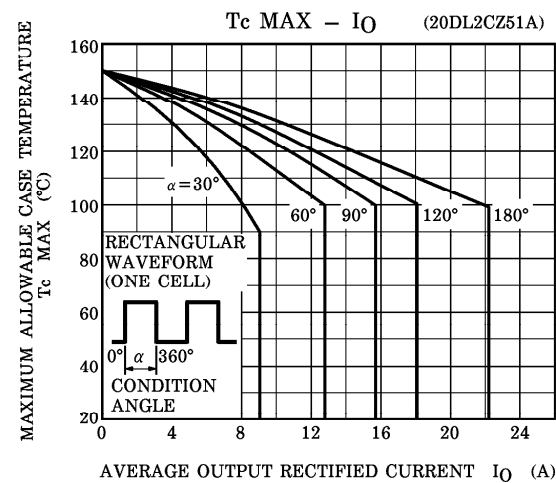
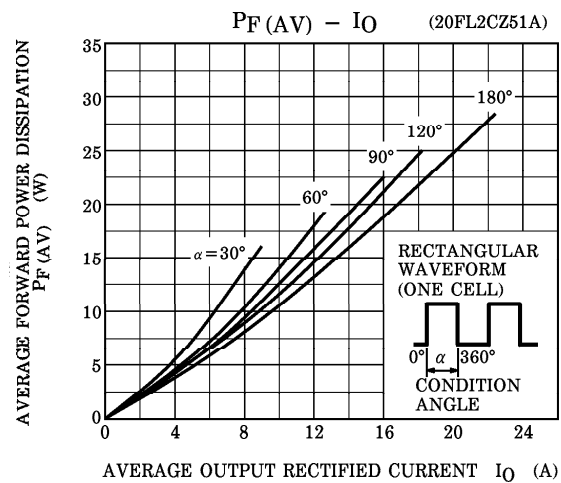
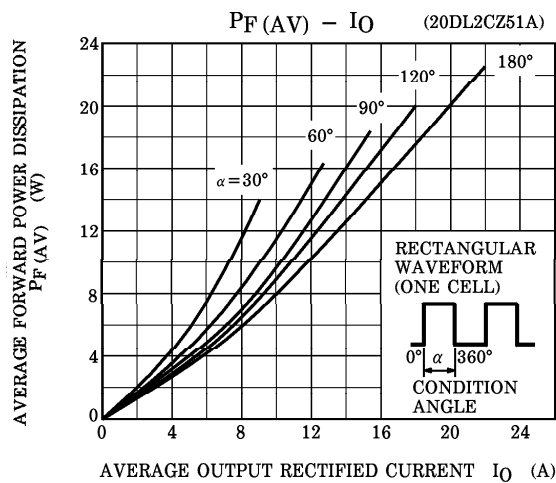
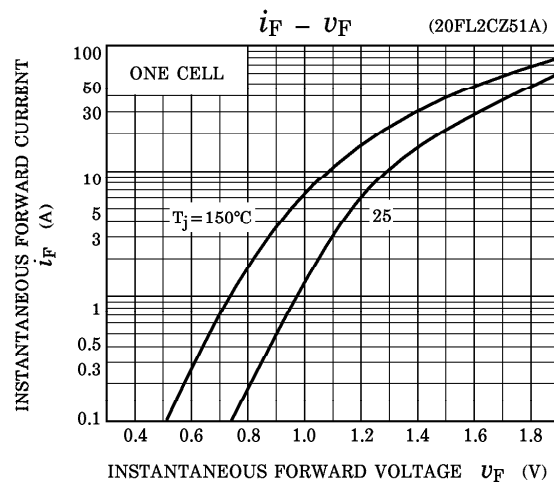
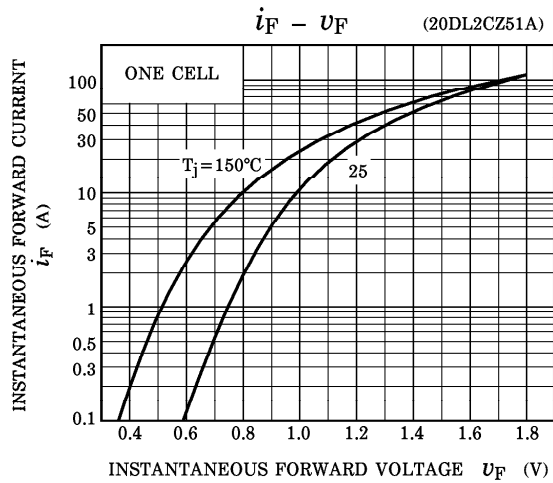
MARKING



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

961001EAA2

● TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.



961001EAA2'

- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.

