

TOSHIBA HIGH EFFICIENCY DIODE STACK (HED) SILICON EPITAXIAL TYPE

## 20DL2C41A, 20FL2C41A, 20GL2C41A

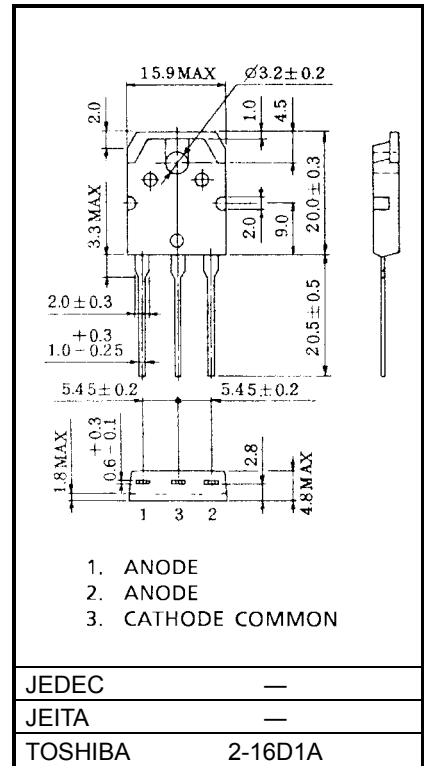
SWITCHING MODE POWER SUPPLY APPLICATIONS  
CONVERTER & CHOPPER APPLICATION

Unit: mm

- Repetitive Peak Reverse Voltage :  $V_{RRM} = 200, 300, 400V$
- Average Output Rectified Current :  $I_O = 20A$
- Ultra Fast Reverse-Recovery Time :  $t_{rr} = 35ns (Max)$
- Low Switching Losses and Output Noise

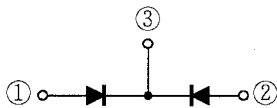
### MAXIMUM RATINGS ( $T_a = 25^\circ C$ )

CHARACTERISTIC		SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	20DL2CZ41A	$V_{RRM}$	200	V
	20FL2CZ41A		300	
	20GL2CZ41A		400	
Average Output Rectified Current		$I_O$	20	A
Peak One Cycle Surge Forward Current (Non Repetitive)		$I_{FSM}$	100 (50Hz)	A
			110 (60Hz)	
Junction Temperature		$T_j$	-40~150	$^\circ C$
Storage Temperature Range		$T_{stg}$	-40~150	$^\circ C$
Screw Torque		-	0.8	N·m

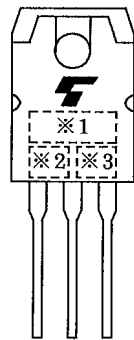


Weight: 4.85g

### POLARITY



### MARKING



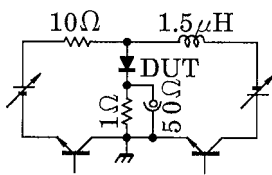
* 1	MARK	20DL2C	TYPE	20DL2C41A
		20FL2C		20FL2C41A
		20GL2C		20GL2C41A
* 2	A			
* 3	Lot number			
				Month (Starting from Alphabet A)
				Year (Last Number of the Christian Era)

### ELECTRICAL CHARACTERISTICS (Ta = 25°C)

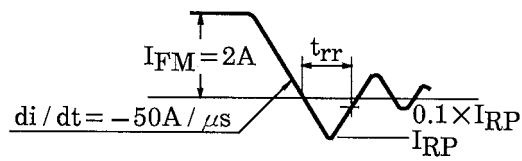
CHARACTERISTIC		SYMBOL	TEST CONDITION	TYP.	MAX	UNIT
Peak Forward Voltage (Note 1)	20DL2C41A	V <sub>FM</sub>	I <sub>FM</sub> = 10A	—	0.98	V
	20FL2C41A			—	1.3	
	20GL2C41A			—	1.8	
Repetitive Peak Reverse Current (Note 1)	I <sub>RPM</sub>	V <sub>RRM</sub> = Rated	—	50	μA	
Reverse Recovery Time (Note 1)	t <sub>rr</sub>	I <sub>F</sub> = 2.0A, di / dt = - 50A / μs	—	35	ns	
Forward Recovery Time (Note 1)	t <sub>fr</sub>	I <sub>F</sub> = 1A	—	100	ns	
Thermal Resistance	R <sub>th(j-c)</sub>	DC Total, Junction to Case	—	1.5	°C / W	

Note 1: A value of one cell.

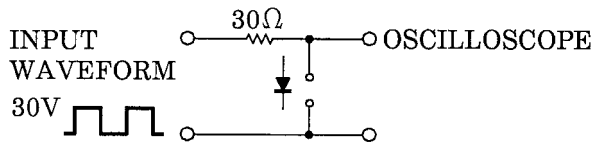
Note 2: t<sub>rr</sub> TEST CIRCUIT



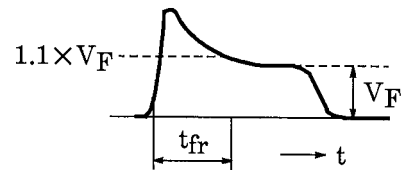
t<sub>rr</sub> WAVEFORM

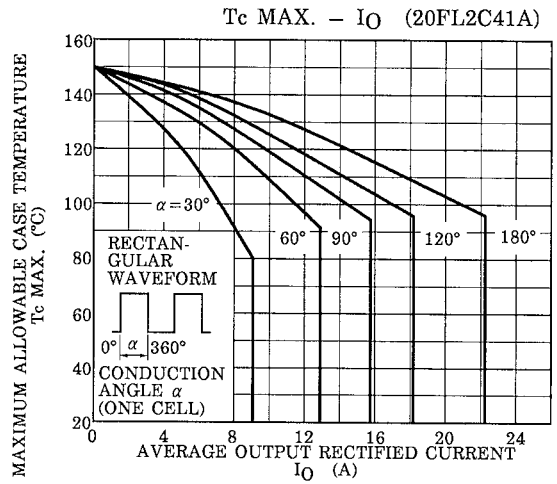
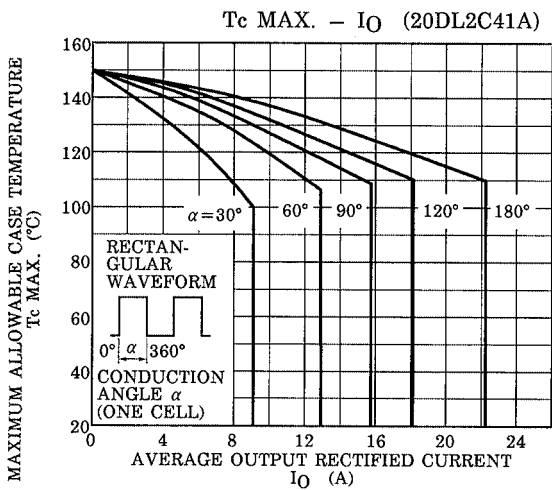
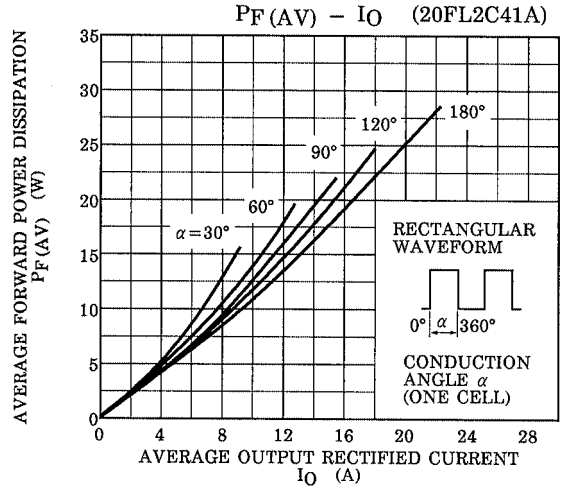
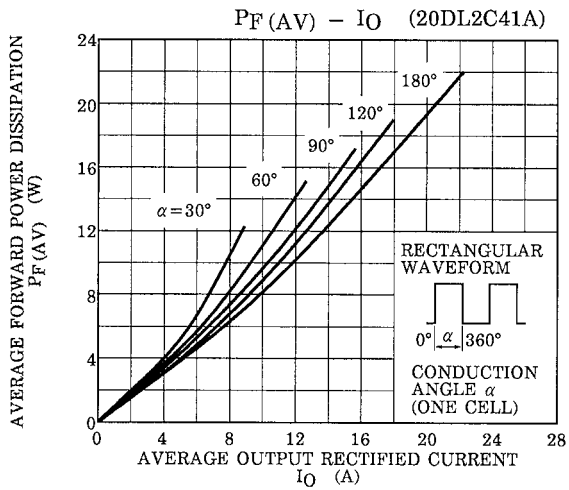
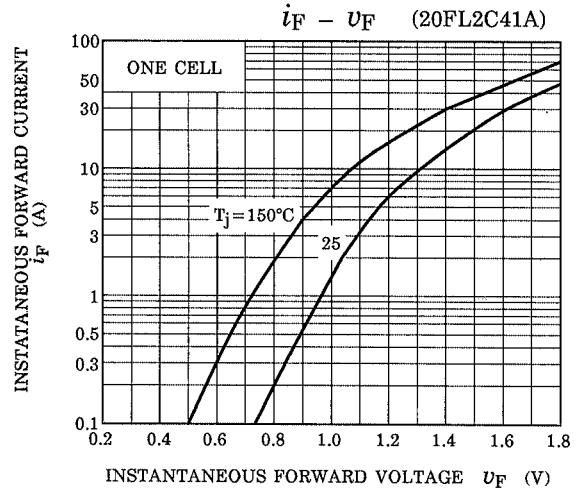
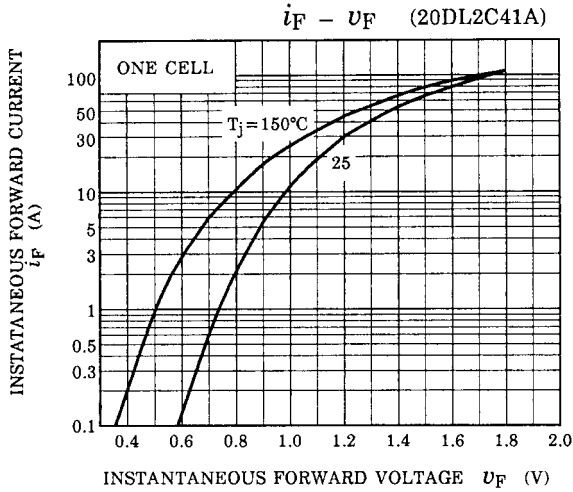


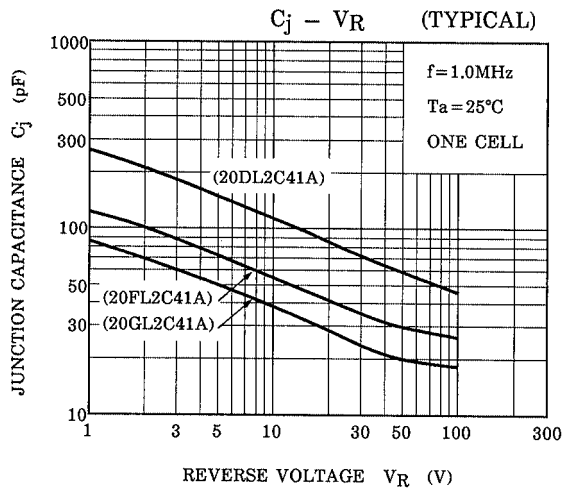
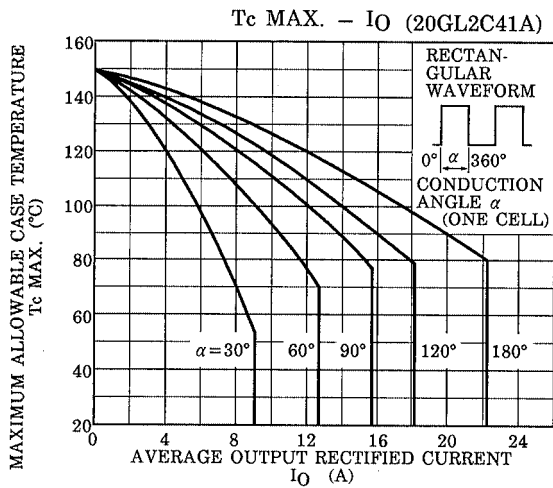
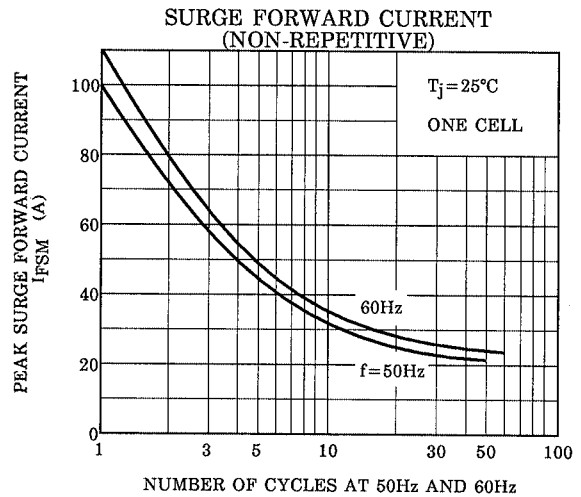
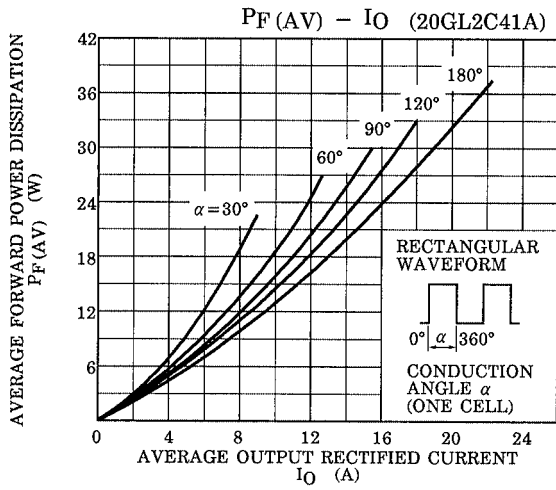
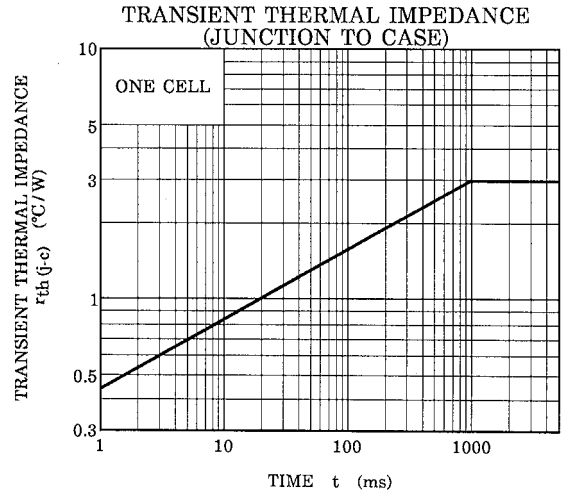
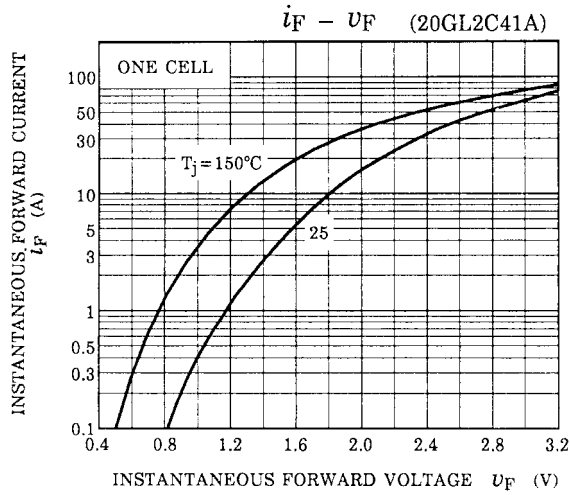
Note 3: t<sub>fr</sub> TEST CIRCUIT



t<sub>fr</sub> Waveform







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