

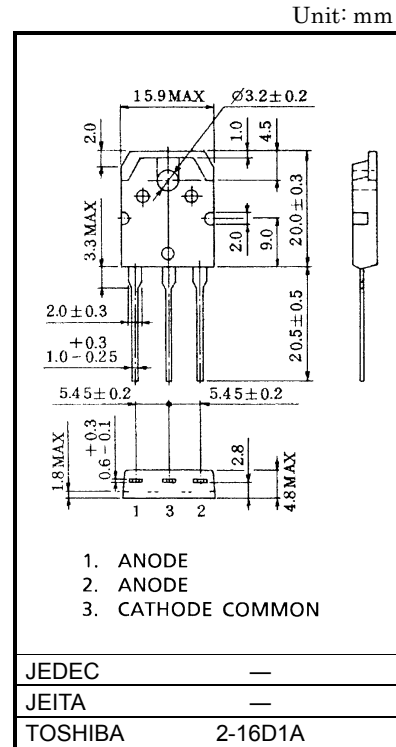
20DL2C41A, 20FL2C41A, 20GL2C41A

SWITCHING MODE POWER SUPPLY APPLICATION CONVERTER & CHOPPER APPLICATION

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

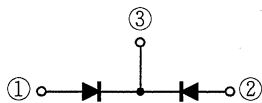
MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	200	V
		300	
		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	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-40~150	$^\circ\text{C}$
Screw Torque	-	0.8	N·m

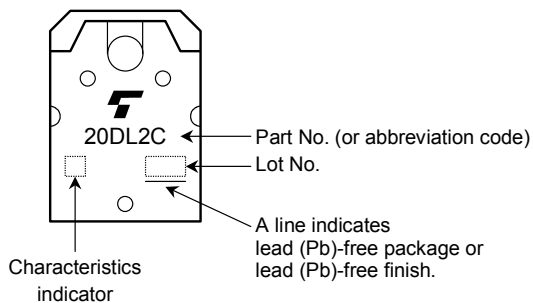


Weight: 4.85g

POLARITY



MARKING



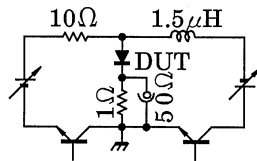
Abbreviation Code	Part No.
20DL2C	20DL2C41A
20FL2C	20FL2C41A
20GL2C	20GL2C41A

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

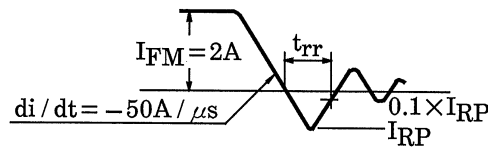
CHARACTERISTIC		SYMBOL	TEST CONDITION	TYP.	MAX	UNIT
Peak Forward Voltage (Note 1)	20DL2C41A	V_{FM}	$I_{FM} = 10A$	—	0.98	V
	20FL2C41A			—	1.3	
	20GL2C41A			—	1.8	
Repetitive Peak Reverse Current (Note 1)		I_{RRM}	$V_{RRM} = \text{Rated}$	—	50	μA
Reverse Recovery Time (Note 1)		t_{rr}	$I_F = 2.0A$, $di/dt = -50A/\mu s$	—	35	ns
Forward Recovery Time (Note 1)		t_{fr}	$I_F = 1A$	—	100	ns
Thermal Resistance		$R_{th(j-c)}$	Total DC, Junction to Case	—	1.5	$^{\circ}C/W$

Note 1: A value applied to one cell.

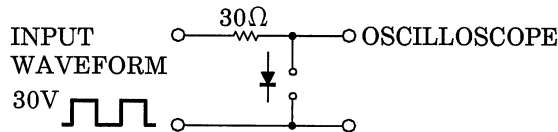
Note 2: t_{rr} Test Circuit



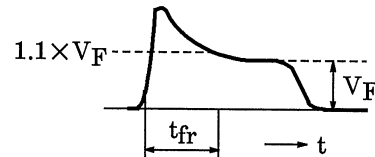
t_{rr} Waveform



Note 3: t_{fr} Test Circuit



t_{fr} Waveform



Handling Precaution

The maximum ratings denote the absolute maximum ratings, which are rated values and must not be exceeded during operation, even for an instant. The following are the general derating methods that we recommend when you design a circuit with a device.

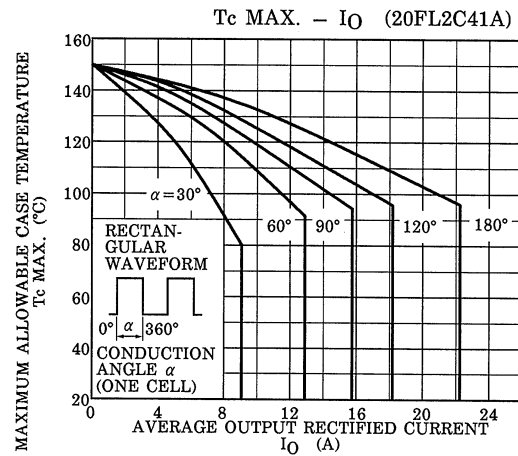
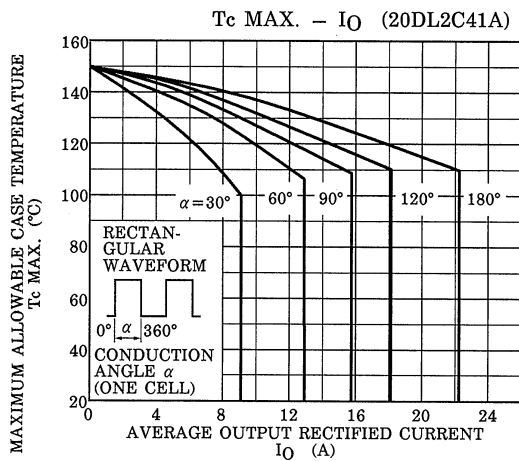
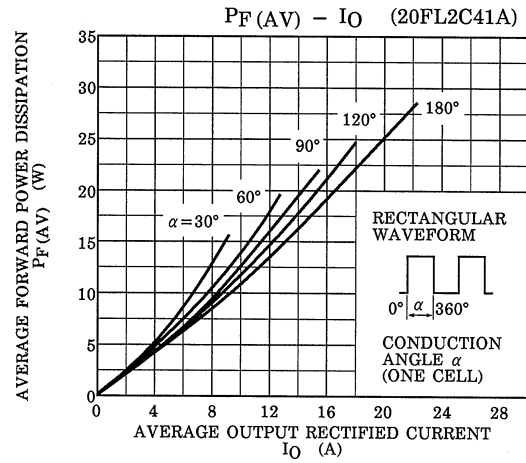
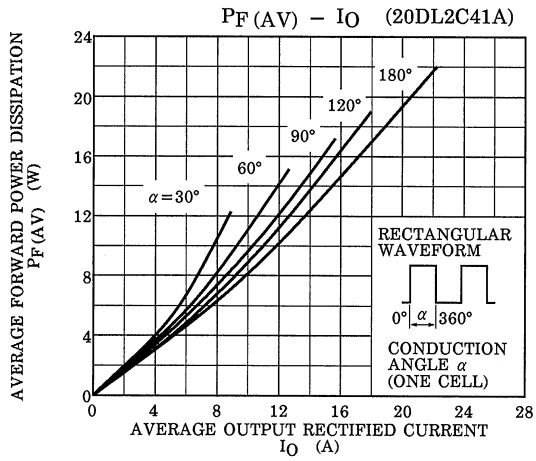
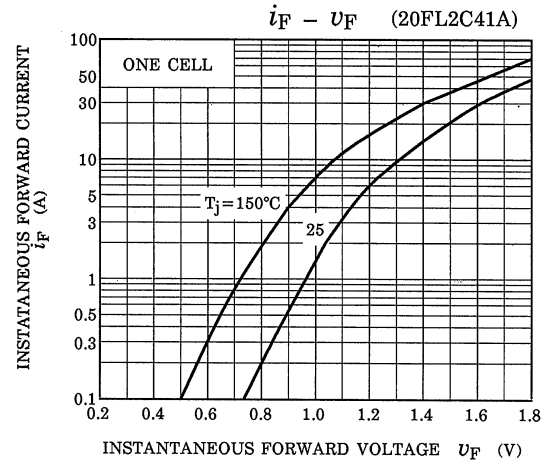
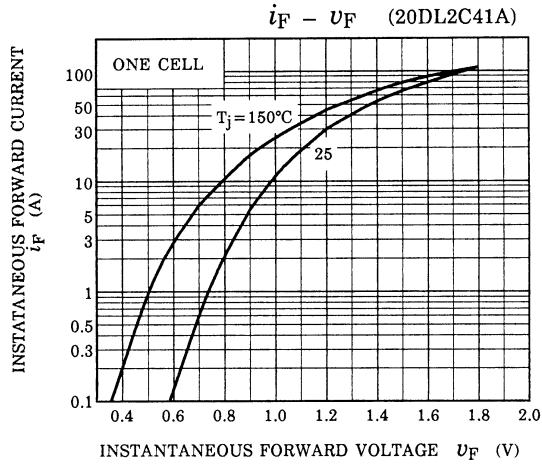
V_{RRM}: We recommend that the worst case voltage, including surge voltage, be no greater than 80% of the maximum rating of V_{RRM} for a DC circuit and be no greater than 50% of that of V_{RRM} for an AC circuit. V_{RRM} has a temperature coefficient of 0.1%/°C. Take this temperature coefficient into account designing a device at low temperature.

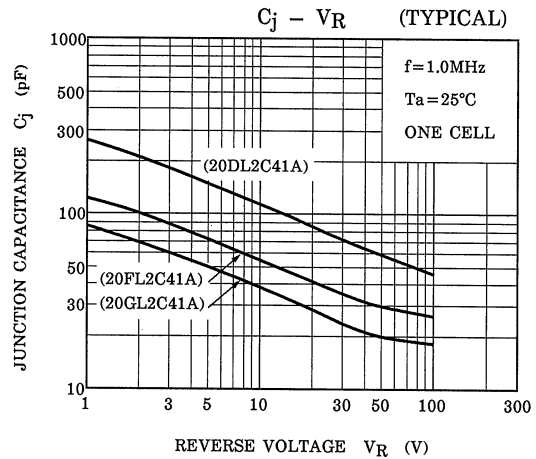
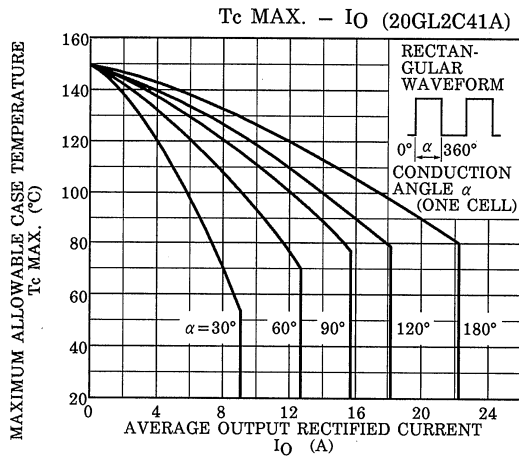
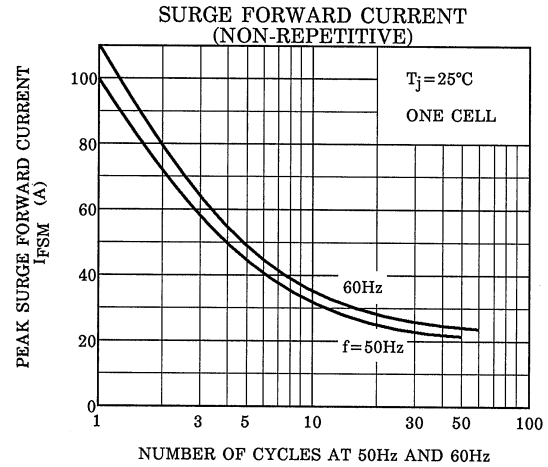
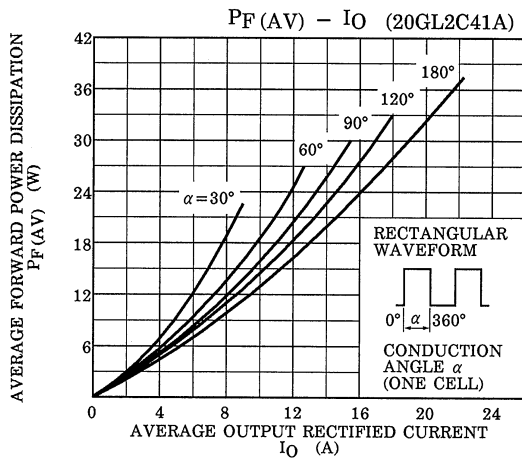
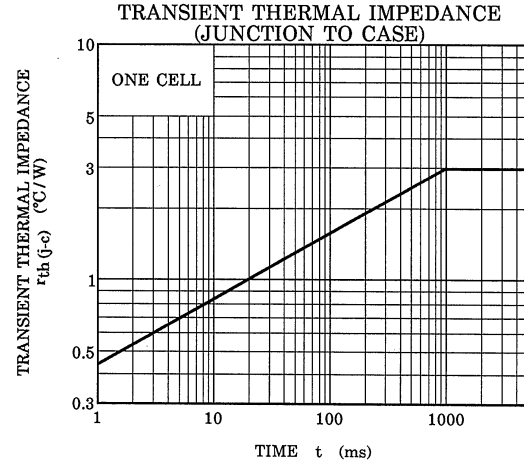
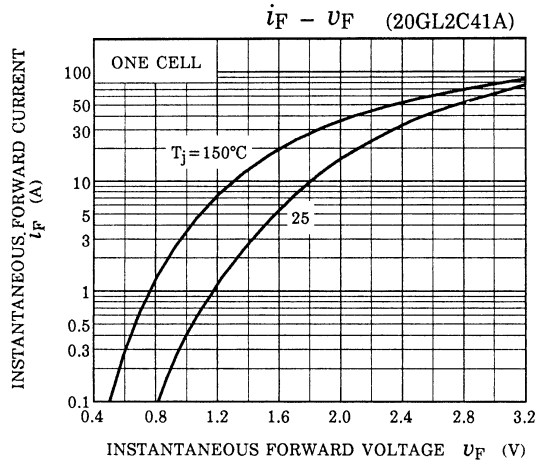
I_O: We recommend that the worst case current be no greater than 80% of the maximum rating of I_O. Carry out adequate heat design. If you can't design a circuit with excellent heat radiation, set the margin by using an allowable T_{amax}-I_O curve.

This rating specifies the non-repetitive peak current in one cycle of a 50-Hz sine wave, condition angle 180. Therefore, this is only applied for an abnormal operation, which seldom occurs during the lifespan of the device.

We recommend that a device be used at a T_j of below 120°C under the worst load and heat radiation conditions.

Please refer to the Rectifiers databook for further information.





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