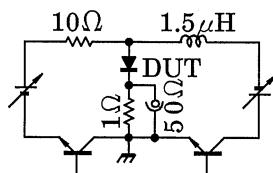


Electrical Characteristics (Ta = 25°C)

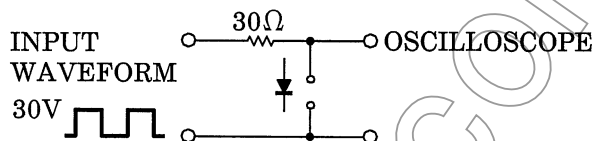
CHARACTERISTIC	SYMBOL	TEST CONDITION	TYP.	MAX	UNIT
Peak Forward Voltage (Note 1)	20DL2C41A	$I_{FM} = 10\text{ A}$	—	0.98	V
	20FL2C41A		—	1.3	
	20GL2C41A		—	1.8	
Repetitive Peak Reverse Current (Note 1)	I_{RRM}	$V_{RRM} = \text{Rated}$	—	50	μA
Reverse Recovery Time (Note 1)	t_{rr}	$I_F = 2.0\text{ A}$,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

Note 1: A value applied to one cell.

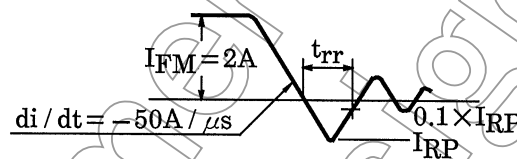
Note 2: t_{rr} Test Circuit



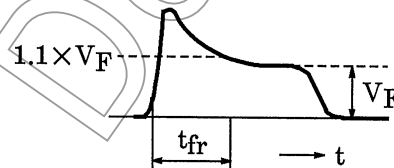
Note 3: t_{fr} Test Circuit



t_{rr} Waveform



t_{fr} Waveform



Handling Precaution

The absolute maximum ratings of a semiconductor device are a set of ratings that must not be exceeded, even for a moment. Do not exceed any of these ratings. The following are the general derating methods that we recommend when you design a circuit with a device.

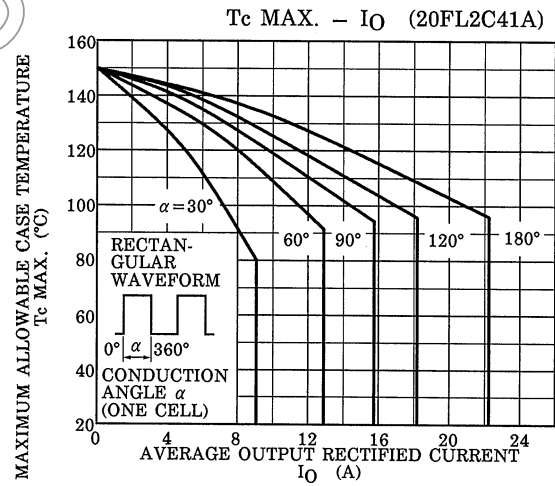
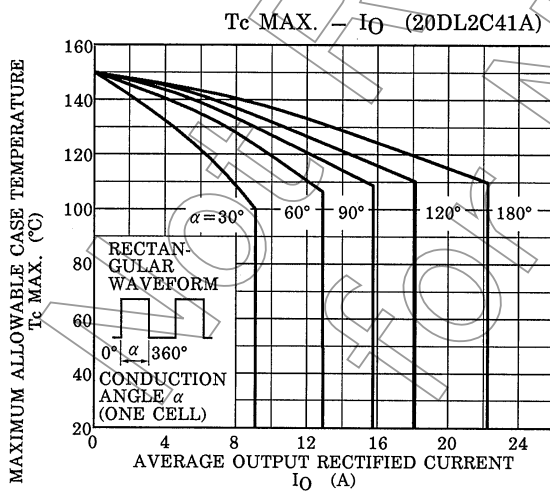
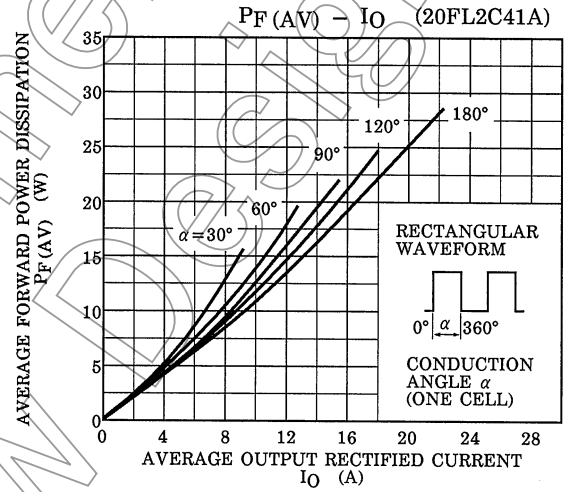
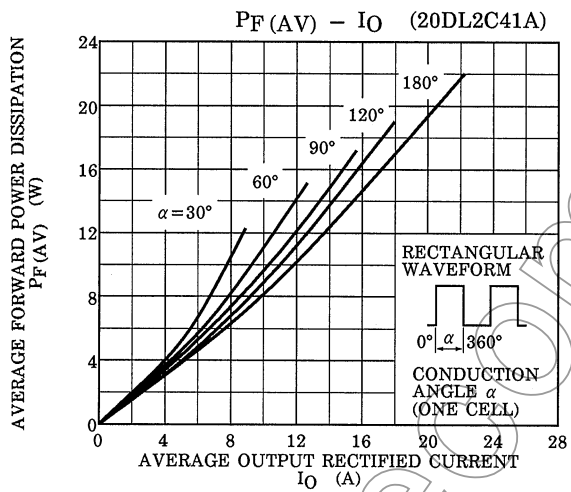
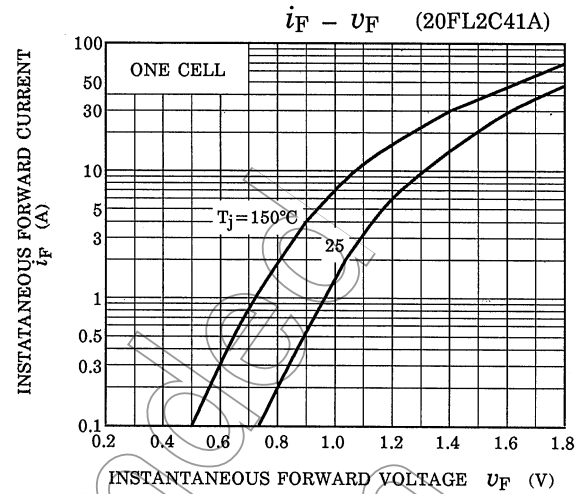
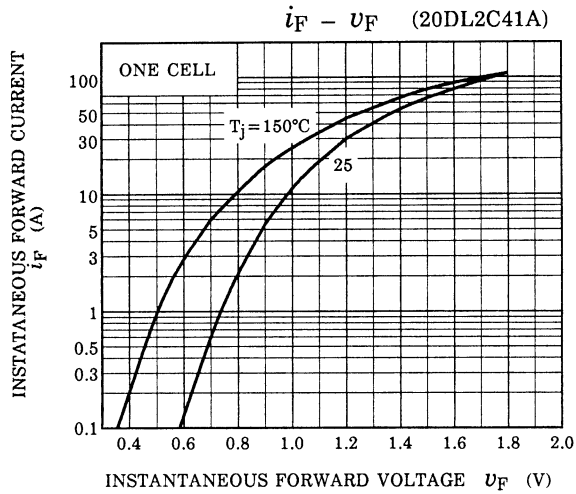
VRRM: We recommend that the worst case voltage, including surge voltage, be no greater than 80% of the absolute maximum rating of VRRM for a DC circuit and be no greater than 50% of that of VRRM for an AC circuit. VRRM has a temperature coefficient of 0.1%/°C. Take this temperature coefficient into account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

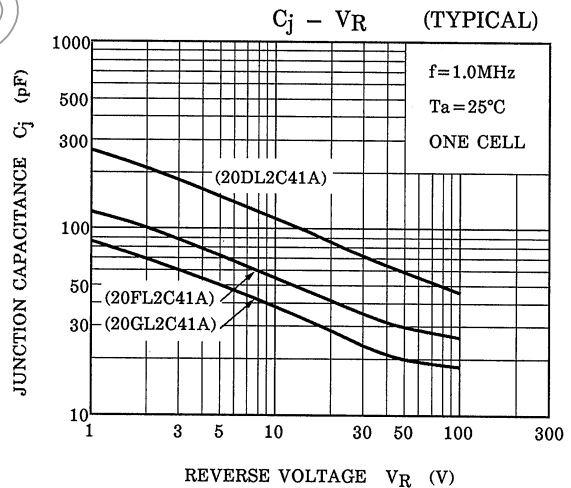
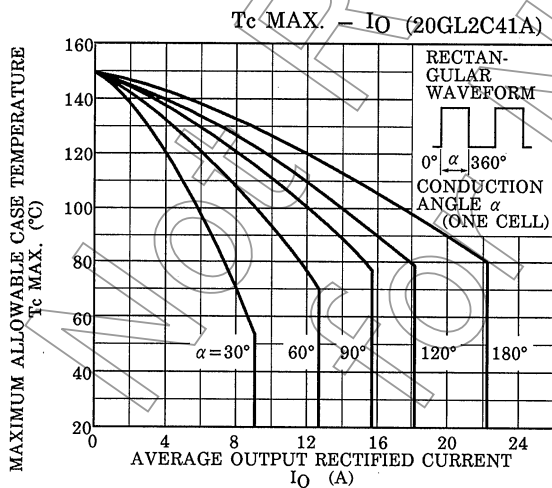
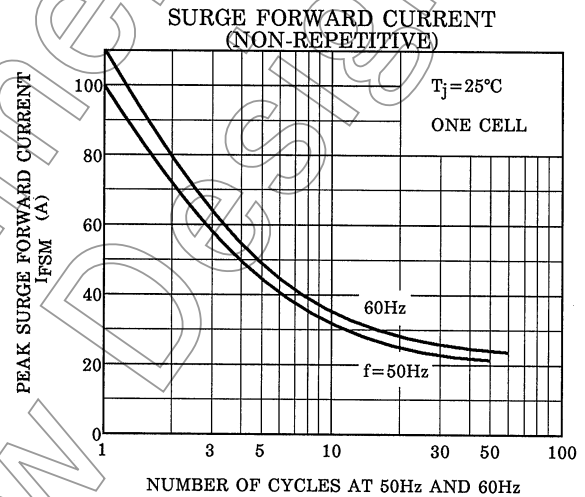
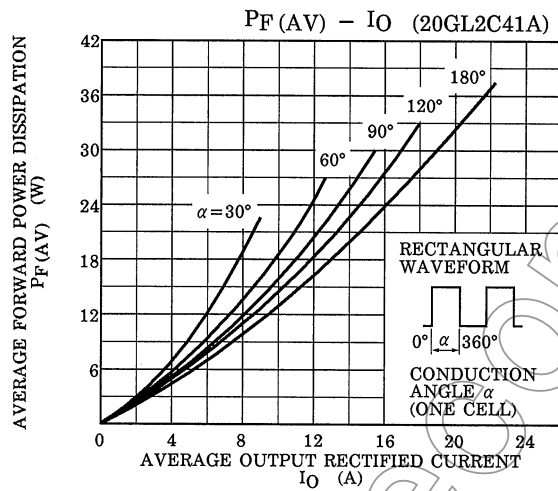
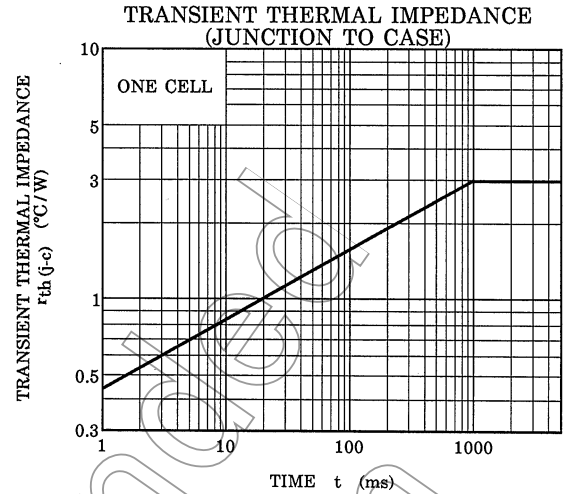
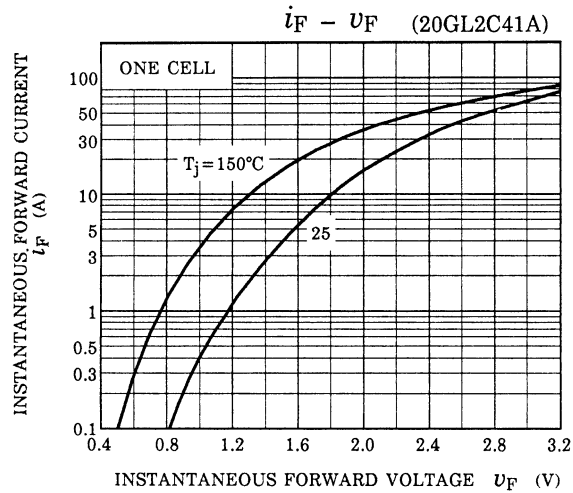
IO: We recommend that the worst case current be no greater than 80% of the absolute maximum rating of IO. Carry out adequate heat design. If you can't design a circuit with excellent heat radiation, set the margin by using an allowable Tc max-IO curve.

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 Tj 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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