TOSHIBA HIGH EFFICIENCY DIODE STACK (HED) SILICON EPITAXIAL TYPE

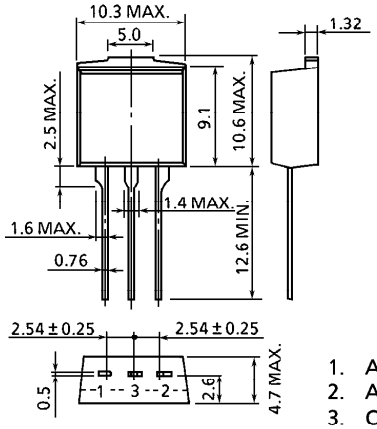
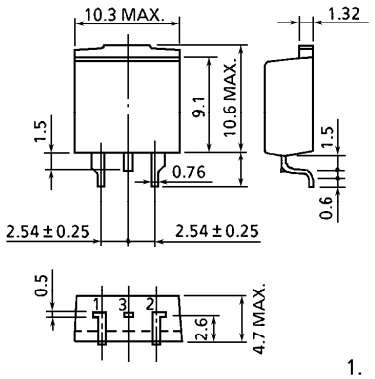
20DL2C48A, U20DL2C48A, 20FL2C48A, U20FL2C48A

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.

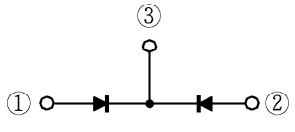
Unit in mm

20DL2C48A·20FL2C48A	U20DL2C48A·U20FL2C48A
 1. ANODE 2. ANODE 3. CATHODE	 1. ANODE 2. ANODE 3. CATHODE
JEDEC —	JEDEC —
EIAJ —	EIAJ —
TOSHIBA 12-10D1A	TOSHIBA 12-10D2A

MAXIMUM RATINGS

CHARACTERISTIC		SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	20DL2C48A	V_{RRM}	200	V
	U20DL2C48A			
	20FL2C48A		300	
	U20FL2C48A			
Average Output Rectified Current		I_O	20	A
Peak One Cycle Surge Forward Current		I_{FSM}	100 (50Hz)	A
			110 (60Hz)	
Junction Temperature		T_j	−40~150	°C
Storage Temperature Range		T_{stg}	−40~150	°C

POLARITY



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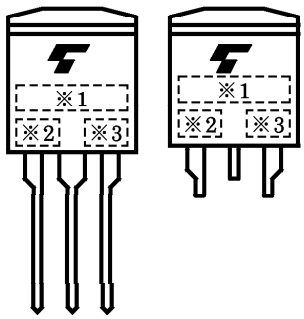
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Peak Forward Voltage	20DL2C48A	V_{FM}	I_{FM} = 10A	—	—	0.98	V
	U20DL2C48A						
	20FL2C48A			—	—	1.3	
	U20FL2C48A						
Repetitive Peak Reverse Current		I_{RRM}	V_{RRM} = Rated	—	—	50	μA
Reverse Recovery time		t_{rr}	I_F = 2A, di / dt = −50A / μs	—	—	35	ns
Forward Recovery time		t_{fr}	I_F = 1A	—	—	100	ns
Thermal Resistance		$R_{th\ (j\text{-}c)}$	DC Total	—	—	1.6	°C / W

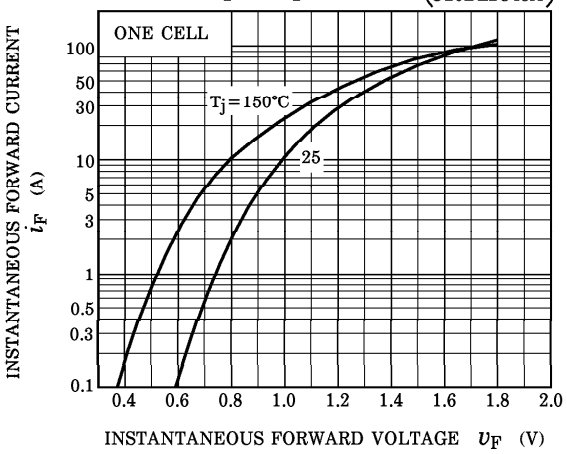
V_{FM}, I_{RRM}, t_{rr}, t_{fr} : A value of one cell.

MARKING

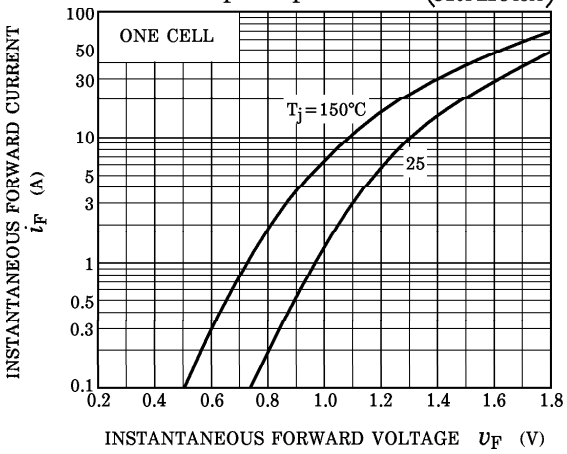


※1	MARK	20DL2C	TYPE	20DL2C48A, U20DL2C48A
		20FL2C		20FL2C48A, U20FL2C48A
※2	A			
※3	Lot Number □□ — Month (Starting from Alphabet A) └— Year (Last Number of the Cristian Era)			

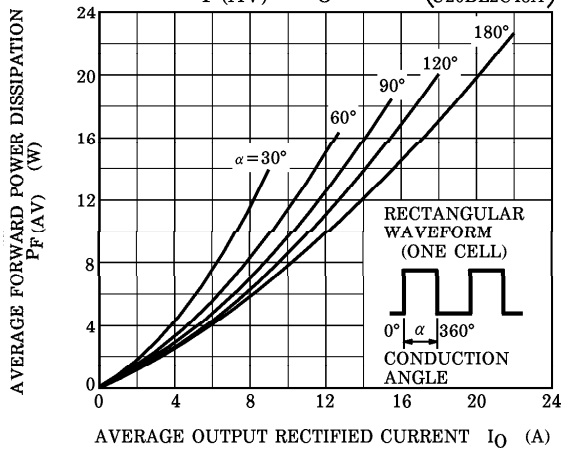
$i_F - v_F$ (20DL2C48A U20DL2C48A)



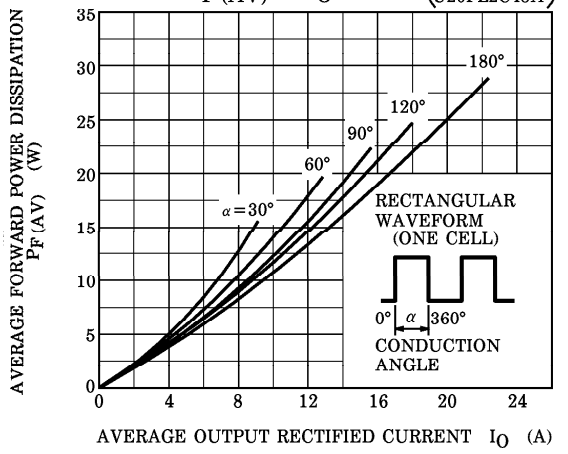
$i_F - v_F$ (20FL2C48A U20FL2C48A)



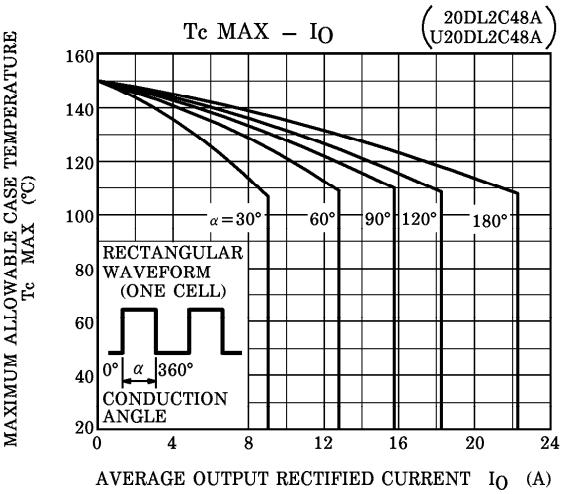
$P_{F(AV)} - I_O$ (20DL2C48A U20DL2C48A)



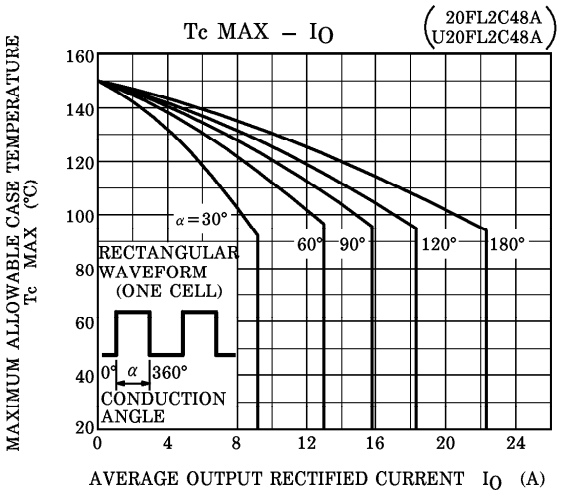
$P_{F(AV)} - I_O$ (20FL2C48A U20FL2C48A)



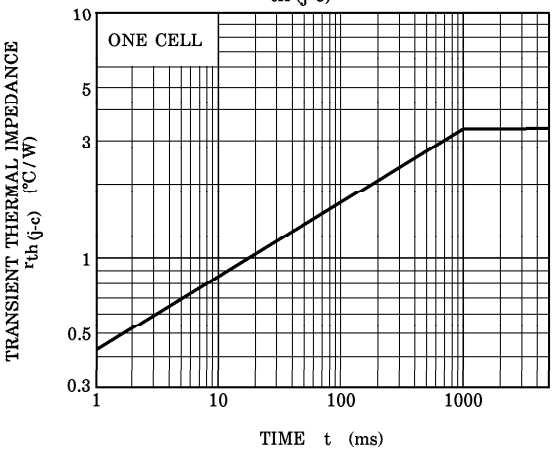
T_C MAX $- I_O$ (20DL2C48A U20DL2C48A)



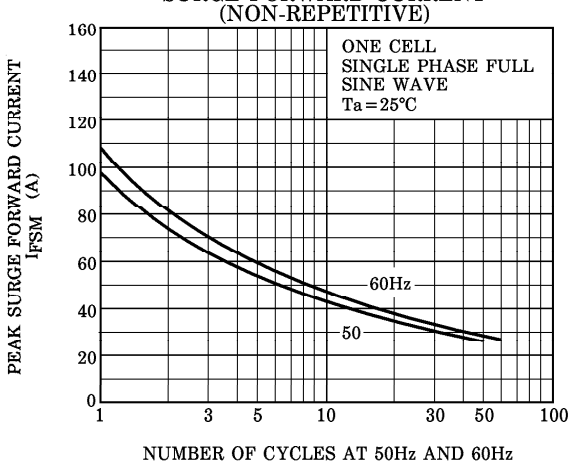
T_C MAX $- I_O$ (20FL2C48A U20FL2C48A)



$r_{th\,(j\text{-}c)}$ – t



SURGE FORWARD CURRENT (NON-REPETITIVE)



C_j – V_R (TYPICAL)