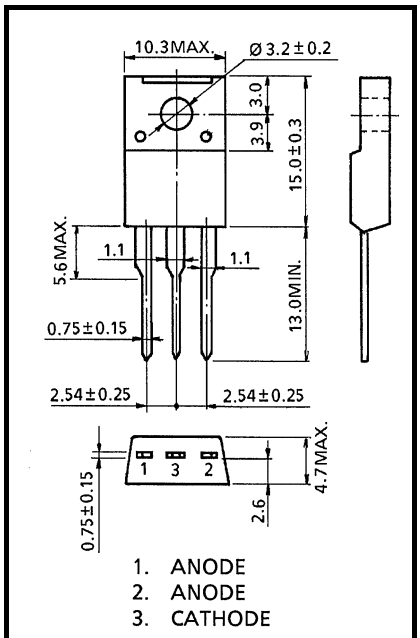
10DL2CZ47A, 10FL2CZ47A, 10GL2CZ47A

SWITCHING MODE POWER SUPPLY APPLICATIONS
CONVERTER & CHOPPER APPLICATION

- Repetitive Peak Reverse Voltage : V_{RRM} = 200 V, 300 V, 400 V
- Average Output Rectified Current : I_O = 10 A
- Ultra Fast Reverse-Recovery Time : t_{rr} = 35 ns (Max)
- Low Switching Losses and Output Noise

Unit in mm



JEDEC	—
JEITA	—
TOSHIBA	12-10C1A

Weight : 2.0g

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	10DL2CZ47A	V_{RRM}	200	V
	10FL2CZ47A		300	
	10GL2CZ47A		400	
Average Output Rectified Current		I_O	10	A
Peak One Cycle Surge Forward Current (Sine Wave)		I_{FSM}	50 ($50H_Z$)	A
			55 ($60H_Z$)	
Junction Temperature		T_j	−40~150	°C
Storage Temperature Range		T_{stg}	−40~150	°C
Screw Torque		—	0.6	N·m

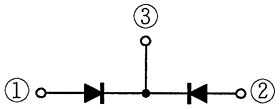
Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.
Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook (“Handling Precautions”/Derating Concept and Methods) and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

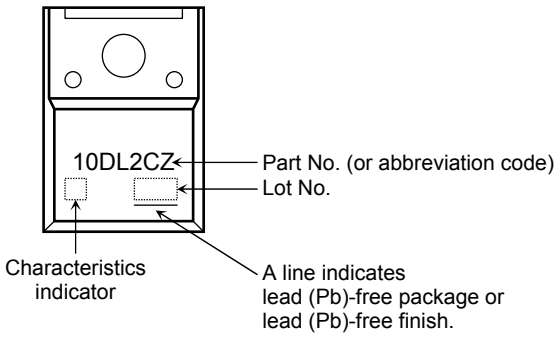
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Peak Forward Voltage (Note 1)	10DL2CZ47A	V_{FM}	I_{FM}=5A	—	—	0.98	V
	10FL2CZ47A			—	—	1.3	
	10GL2CZ47A			—	—	1.8	
Repetitive Peak Reverse Current (Note 1)	10DL2CZ47A	I_{RRM}	V_{RRM}=Rated	—	—	10	μA
	10FL2CZ47A			—	—	10	
	10GL2CZ47A			—	—	50	
Reverse Recovery Time (Note 1)		t_{rr}	I_F=2A, di / dt=−20A / μs	—	—	—	ns
Forward Recovery Time (Note 1)		t_{fr}	I_F=1A	—	—	—	ns
Thermal Resistance		$R_{th\ (j\text{-}c)}$	Total DC, Junction to Case	—	—	—	°C / W

Note 1 : A value applied to one cell.

POLARITY

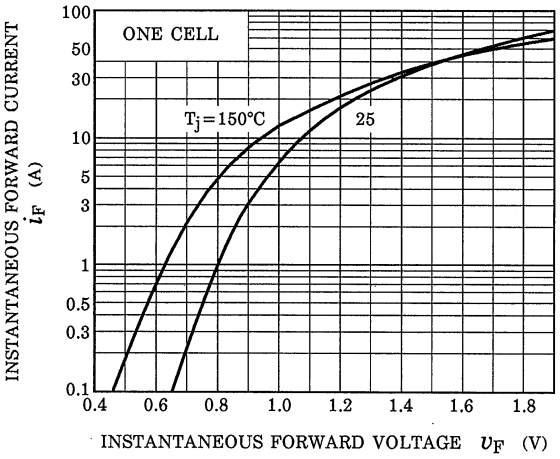


MARKING

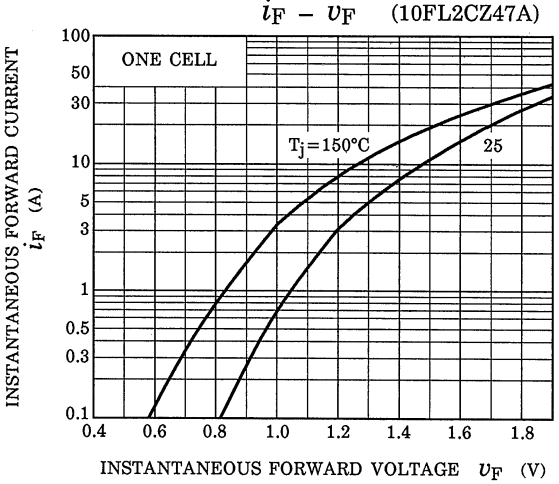


Abbreviation Code	Part No.
10DL2CZ	10DL2CZ47A
10FL2CZ	10FL2CZ47A
10GL2CZ	10GL2CZ47A

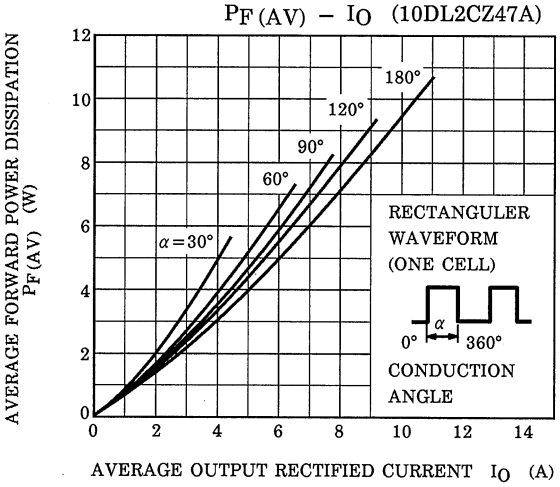
$i_F - v_F$ (10DL2CZ47A)



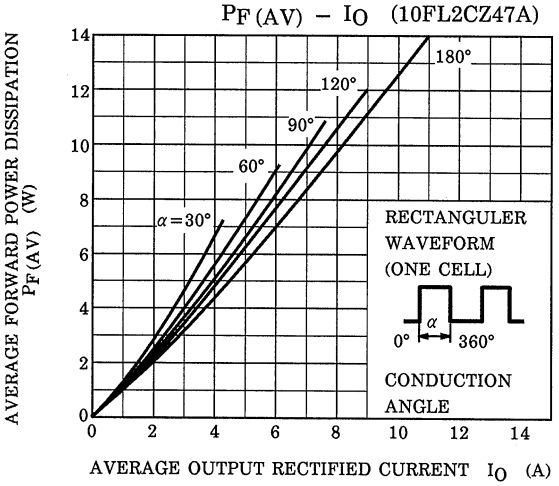
$i_F - v_F$ (10FL2CZ47A)



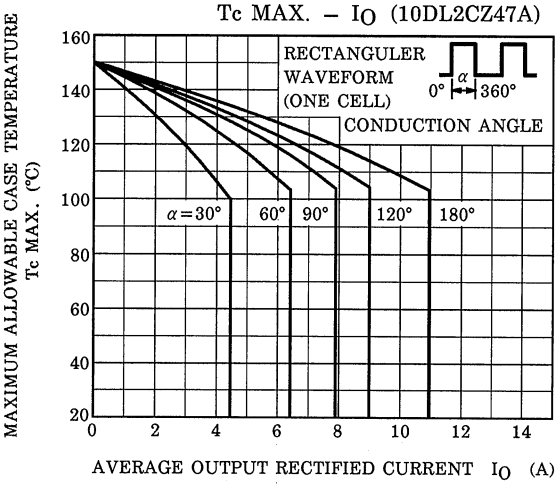
$P_{F(AV)} - I_O$ (10DL2CZ47A)



$P_{F(AV)} - I_O$ (10FL2CZ47A)



Tc MAX. – I_O (10DL2CZ47A)



Tc MAX. – I_O (10FL2CZ47A)