

TOSHIBA HIGH EFFICIENCY DIODE STACK (HED) SILICON EPITAXIAL TYPE

# 10DL2C48A, 10FL2C48A, U10DL2C48A, U10FL2C48A

SWITCHING TYPE POWER SUPPLY APPLICATION.

CONVERTER & CHOPPER APPLICATION.

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

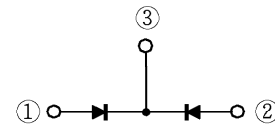
Unit in mm

10DL2C48A, 10FL2C48A	U10DL2C48A, U10FL2C48A
JEDEC —	JEDEC —
EIAJ —	EIAJ —
TOSHIBA 12-10D1A	TOSHIBA 12-10D2A

**MAXIMUM RATINGS**

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	$V_{RRM}$	200	V
		300	
Average Output Rectified Current	$I_O$	10	A
Peak One Cycle Surge Forward Current	$I_{FSM}$	50 (50Hz)	A
		55 (60Hz)	
Junction Temperature	$T_j$	-40~150	°C
Storage Temperature Range	$T_{stg}$	-40~150	°C

**POLARITY**



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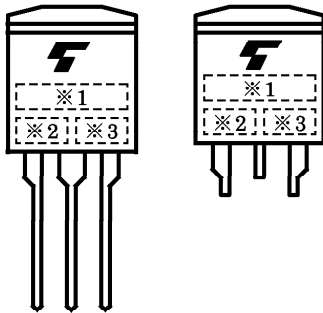
● TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.

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

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Peak Forward Voltage	10DL2C48A	V <sub>FM</sub>	I <sub>FM</sub> = 5A	—	—	0.98	V
	U10DL2C48A					1.3	
	10FL2C48A			—	—	—	
	U10FL2C48A			—	—	—	
Repetitive Peak Reverse Current		I <sub>RRM</sub>	V <sub>RRM</sub> = Rated	—	—	10	μA
Reverse Recovery Time		t <sub>rr</sub>	I <sub>F</sub> = 2A, di / dt = -20A / μs	—	—	35	ns
Forward Recovery Time		t <sub>fr</sub>	I <sub>F</sub> = 1A	—	—	100	ns
Thermal Resistance		R <sub>th(j-c)</sub>	DC Total, Junction to Case	—	—	2.5	°C / W

V<sub>FM</sub>, I<sub>RRM</sub>, t<sub>rr</sub>, t<sub>fr</sub> : A Value of one cell.

**MARKING**



※ 1	MARK	10DL2C 10FL2C	TYPE	10DL2C48A, U10DL2C48A 10FL2C48A, U10FL2C48A
※ 2	A			
※ 3	Lot Number □□ — Month (Starting form Alphabet A) ————— Year (Last Number of the Cristian Era)			

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