

TOSHIBA HIGH EFFICIENCY DIODE STACK (HED) SILICON EPITAXIAL TYPE

# 5DL2C48A, 5FL2C48A, U5DL2C48A, U5FL2C48A

SWITCHING TYPE POWER SUPPLY APPLICATION

CONVERTER & CHOPPER APPLICATION

- Repetitive Peak Reverse Voltage :  $V_{RRM}=200, 300V$
- Average Output Rectified Current :  $I_O=5A$
- Ultra Fast Reverse-Recovery Time :  $t_{rr}=35ns$  (Max.)
- Low Switching Losses and Output Noise.

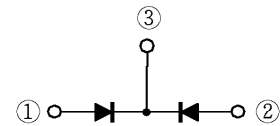
Unit in mm

5DL2C48A, 5FL2C48A		U5DL2C48A, U5FL2C48A	
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	$I_O$	5	A
		Peak One Cycle Surge Forward Current	$I_{FSM}$	25 (50Hz)	A
27.5 (60Hz)					
Junction Temperature	$T_j$	-40~150	°C		
Storage Temperature Range	$T_{stg}$	-40~150	°C		

**POLARITY**



961001EAA2

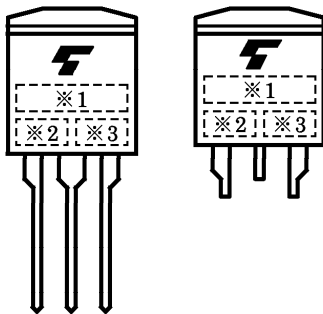
● TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing 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	TYP.	MAX.	UNIT
Peak Forward Voltage	5DL2C48A	V <sub>FM</sub>	I <sub>FM</sub> = 2.5A	—	0.98	V
	U5DL2C48A			—	1.3	
	5FL2C48A					
	U5FL2C48A					
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	—	3.5	°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	5DL2C	TYPE	5DL2C48A, U5DL2C48A
		5FL2C		5FL2C48A, U5FL2C48A
※ 2	A			
※ 3	Lot Number			
	<input type="checkbox"/> <input type="checkbox"/> — Month (Starting form Alphabet A) <input type="checkbox"/> — Year (Last Number of the Christian Era)			

961001EAA2'

- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.

