

TOSHIBA**16FL2C41A**

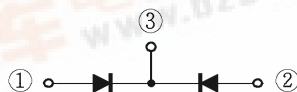
TOSHIBA HIGH EFFICIENCY DIODE STACK (HED) SILICON EPITAXIAL TYPE

16FL2C41A

SWITCHING MODE POWER SUPPLY APPLICATION
CONVERTER & CHOPPER APPLICATION

- Repetitive Peak Reverse Voltage : $V_{RRM}=300V$
- Average Output Rectified Current : $I_O=16A$
- Ultra Fast Reverse-Recovery Time : $t_{rr}=35ns$ (Max.)
- Low Switching Loss and Output Noise.

POLARITY



MAXIMUM RATINGS

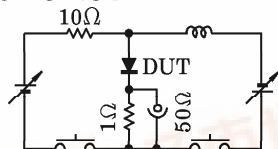
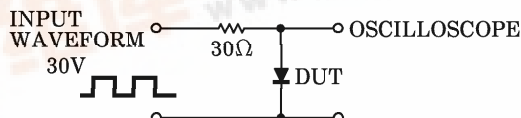
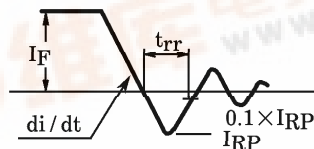
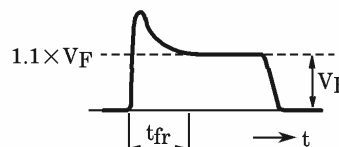
CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	300	V
Average Output Rectified Current (Full Sine Waveform)	I_O	16	A
Peak One Cycle Surge Forward Current (Non-Repetitive)	I_{FSM}	80 (50Hz) 88 (60Hz)	A
Junction Temperature	T_j	-40~150	°C
Storage Temperature Range	T_{stg}	-40~150	°C

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$) (Note 1)

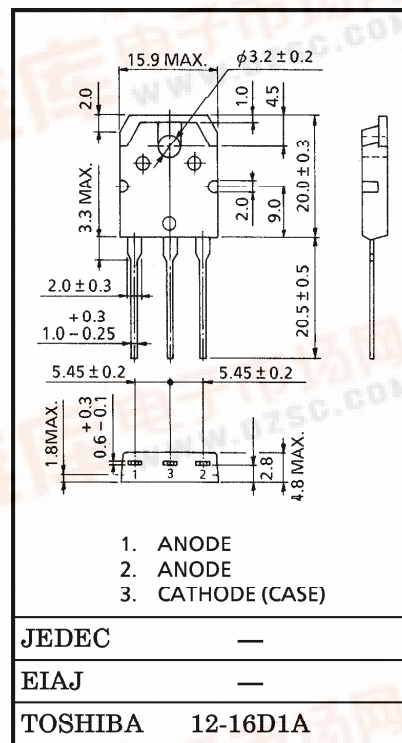
Weight : 4.85g

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	MAX.	UNIT
Peak Forward Voltage	V_{FM}	$I_{FM}=8A$	—	1.3	V
Repetitive Peak Reverse Current	I_{RRM}	$V_{RRM}=300V$	—	50	μA
Reverse Recovery Time	t_{rr}	$I_F=2.0A$ $di/dt = -50A/\mu s$ (Note 2)	—	35	ns
Forward Recovery Time	t_{fr}	$I_F=1.0A$ (Note 3)	—	100	ns
Thermal Resistance	$R_{th(j-c)}$	DC Total, Junction to Case	—	1.9	°C/W

Note 1 : A value of one cell

Note 2 : t_{rr} TEST CIRCUITNote 3 : t_{fr} TEST CIRCUIT t_{rr} Waveform t_{fr} Waveform

Unit in mm



JEDEC

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EIAJ

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TOSHIBA 12-16D1A

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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.

