

TOSHIBA HIGH EFFICIENCY DIODE STACK (HED) SILICON EPITAXIAL TYPE

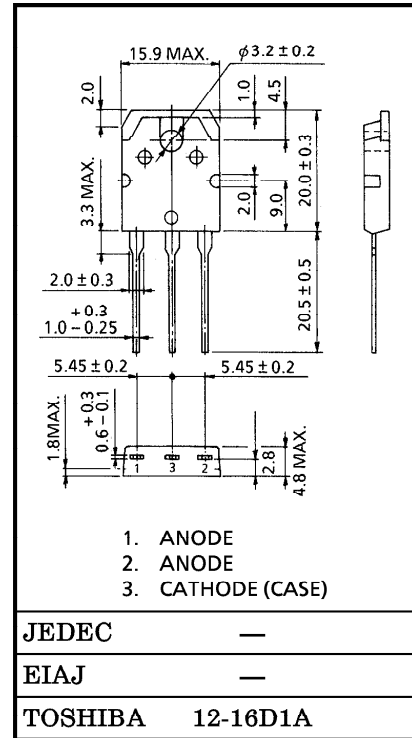
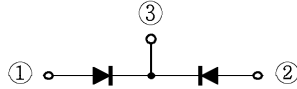
16FL2C41A

SWITCHING MODE POWER SUPPLY APPLICATION
 CONVERTER & CHOPPER APPLICATION

Unit in mm

- 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)	A
		88 (60Hz)	
Junction Temperature	T_j	-40~150	°C
Storage Temperature Range	T_{stg}	-40~150	°C

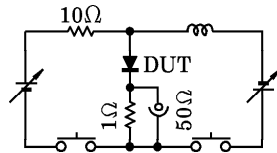
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$) (Note 1)

Weight : 4.85g

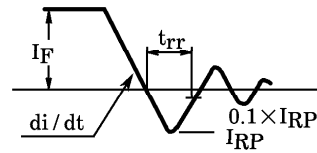
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	MAX.	UNIT
Peak Forward Voltage	V_{FM}	$I_{FM}=8A$	—	1.3	V
Repetitive Peak Reverse Current	I_{RRM}	$V_{RRM}=300V$	—	50	μA
Reverse Recovery Time	t_{rr}	$I_F=2.0A$ $di/dt = -50A/\mu s$ (Note 2)	—	35	ns
Forward Recovery Time	t_{fr}	$I_F=1.0A$ (Note 3)	—	100	ns
Thermal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

Note 1 : A value of one cell

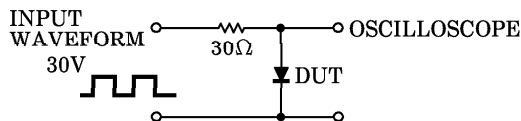
Note 2 : t_{rr} TEST CIRCUIT



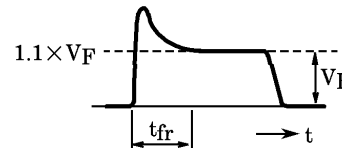
t_{rr} Waveform



Note 3 : t_{fr} TEST CIRCUIT

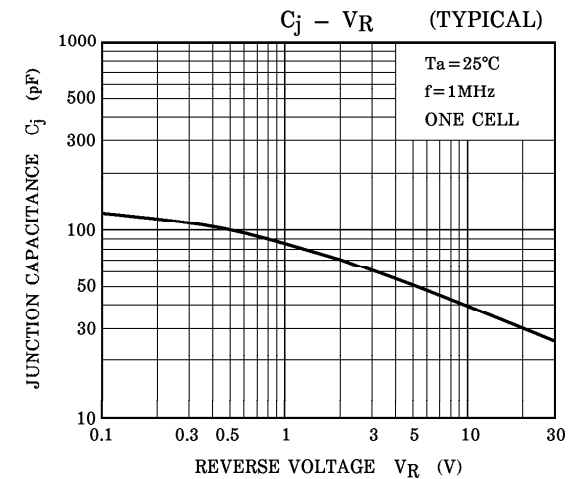
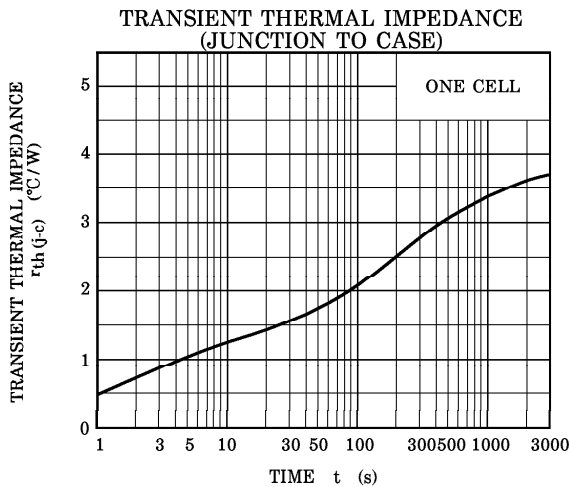
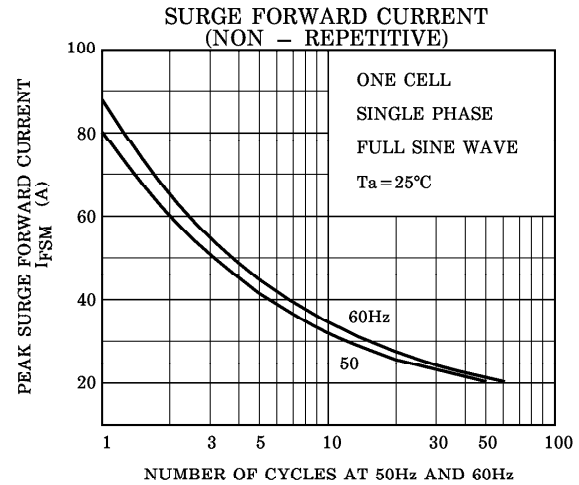
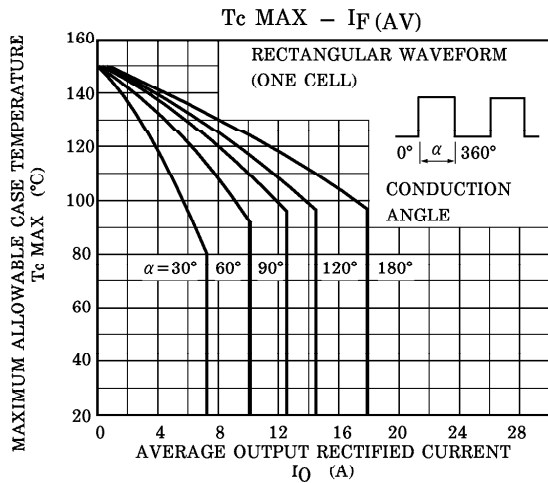
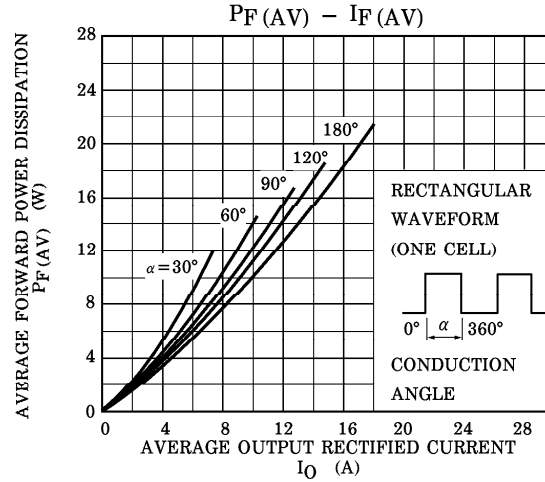
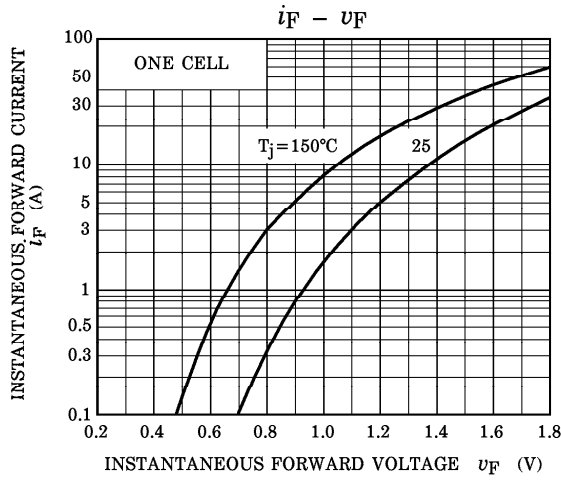


t_{fr} Waveform



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