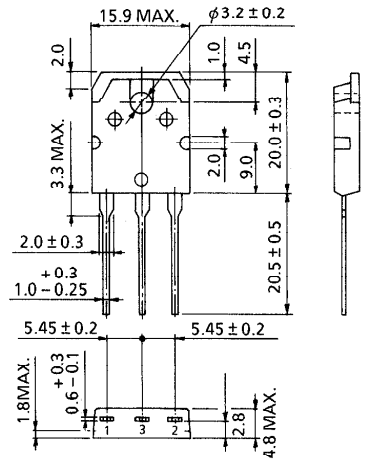
TOSHIBA HIGH EFFICIENCY DIODE STACK (HED) SILICON EPITAXIAL TYPE

20JL2C41

SWITCHING TYPE POWER SUPPLY APPLICATION
CONVERTER & CHOPPER APPLICATION

- Repetitive Peak Reverse Voltage : V_{RRM} = 600V
- Average Output Rectified Current : I_O = 20A
- Ultra Fast Reverse-Recovery Time : t_{rr} = 50ns (Max.)
- Low Switching Losses and Output Noise.

Unit in mm



1. ANODE
2. ANODE
3. CATHODE

JEDEC	—
EIAJ	—
TOSHIBA	12-16D1A

Weight : 4.85g

MAXIMUM RATINGS

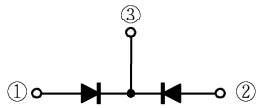
CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Average Output Rectified Current	I_O	20	A
Peak One Cycle Surge Forward Current (Sine Wave)	I_{FSM}	100 (50Hz)	A
		110 (60Hz)	
Junction Temperature	T_j	−40~150	°C
Storage Temperature Range	T_{stg}	−40~150	°C
Screw Torque	—	0.8	N·m

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

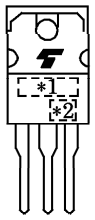
CHARACTERISTIC	SYMBOL	TEST CONDITION	TYP.	MAX.	UNIT
Peak Forward Voltage (Note 1)	V_{FM}	I_{FM} = 10A	—	2.0	V
Repetitive Peak Reverse Current (Note 1)	I_{RRM}	V_{RRM} = 600V	—	50	μA
Reverse Recovery time (Note 1)	t_{rr}	I_F = 2A, di / dt = −50A / μs	—	50	ns
Forward Recovery time (Note 1)	t_{fr}	I_F = 1A	—	150	ns
Thermal Resistance	$R_{th\ (j\text{-}c)}$	DC Total, Junction to Case	—	1.5	°C / W

Note 1 : A value of one cell.

POLARITY



MARKING

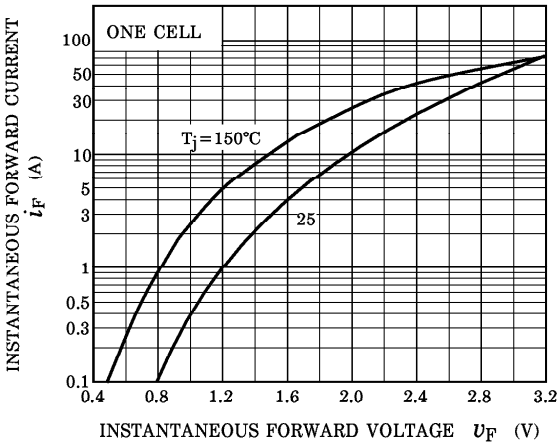


*1	MARK	20JL2C
*2	Lot Number □□—Month (Starting from Alphabet A) └ Year (Last Number of the Christian Era)	

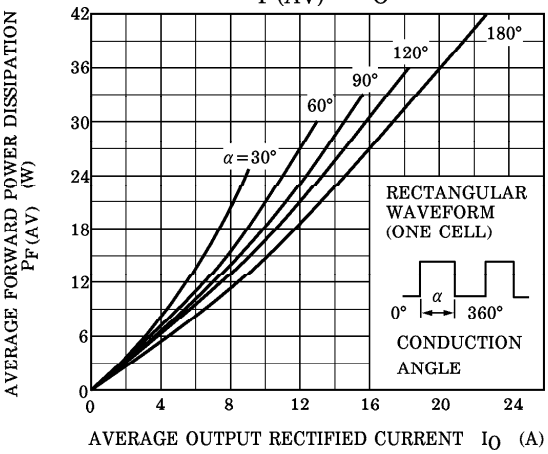
961001EAA2

● 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.

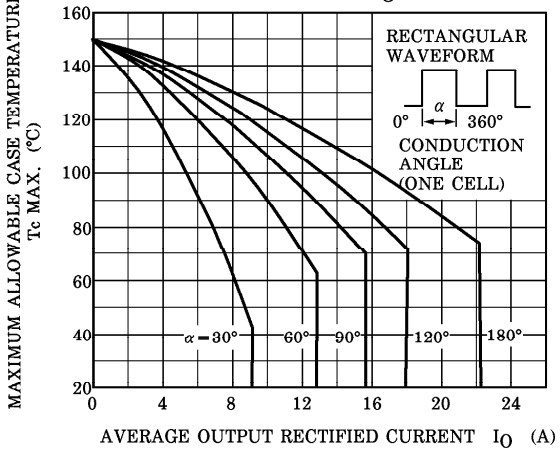
$i_F - v_F$



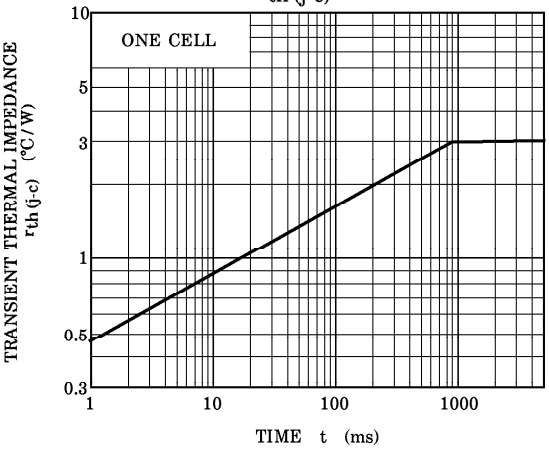
$P_{F(AV)} - I_O$



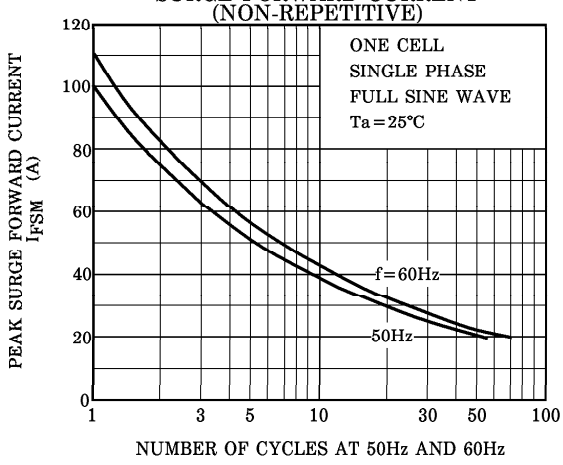
Tc MAX. – I_O



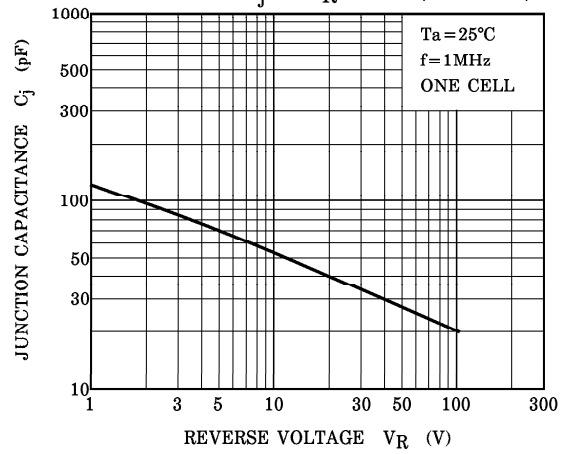
$r_{th(j-c)} - t$



SURGE FORWARD CURRENT (NON-REPETITIVE)



$C_j - V_R$ (TYPICAL)



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.