



# 16A, 200V - 600V Switch mode Power Rectifiers

## **FEATURES**

- Ultrafast recovery times
- 175°C operating junction temperature
- Popular TO-220AB Package
- High temperature glass passivated junction
- High voltage capability to 600 volts
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21







## MECHANICAL DATA

Case: TO-220AB

Molding compound, UL flammability classification rating 94V-0

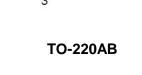
Part no. with suffix "H" means AEC-Q101 qualified

Packing code with suffix "G" means green compound (halogen-free) **Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

Polarity: As marked

**Mounting torque:** 0.56 Nm max. **Weight:** 1.82 g (approximately)



MAXIMUM RATINGS AND ELE	CTRICAL CHA	ARACTERI	STICS (T <sub>A</sub> =25	5°C unless other	rwise noted)	
PARAMETER		SYMBOL	MUR	MUR	MUR	UNIT
			1620CT	1640CT	1660CT	
Maximum repetitive peak reverse voltage		$V_{RRM}$	200	400	600	V
Maximum RMS voltage		$V_{RMS}$	140	280	420	V
Maximum DC blocking voltage		$V_{DC}$	200	400	600	V
Maximum average forward rectified current		I <sub>F(AV)</sub>	16			Α
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load		I <sub>FSM</sub>	100			А
Maximum instantaneous forward voltage @ 8 A (Note 1)	T <sub>J</sub> =25°C T <sub>J</sub> =150°C	V <sub>F</sub>	0.975 0.895	1.3 1.1	1.5 1.2	V
Maximum reverse current @ rated V <sub>R</sub>	T <sub>J</sub> =25°C T <sub>J</sub> =125°C	I <sub>R</sub>	5 250	10 500		μА
Maximum reverse recovery time (Note 2)		t <sub>rr</sub>	25	50		ns
Typical thermal resistance		$R_{ heta JC}$	3	2		°C/W
Operating junction temperature range		$T_J$	- 55 to +175			°C
Storage temperature range		$T_{STG}$	- 55 to +175			°C

Note 1: Pulse test with PW=300 $\mu$ s, 1% duty cycle Note 2: Test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A.



ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX <sup>(*)</sup>	PACKAGE	PACKING
MUR16x0CT (Note 1)	Н	C0	G	TO-220AB	50 / Tube

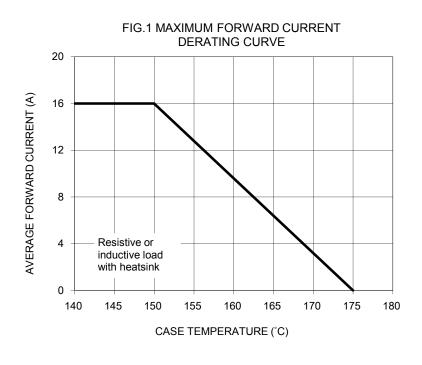
Note 1: "x" defines voltage from 200V (MUR1620CT) to 600V (MUR1660CT)

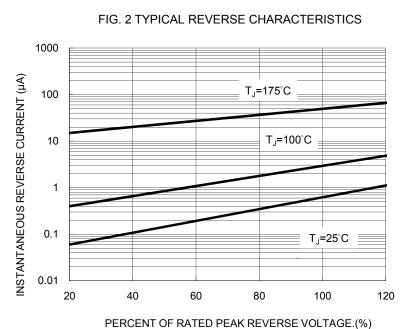
<sup>\*:</sup> Optional available

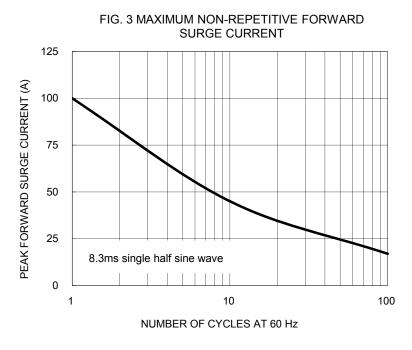
EXAMPLE					
EXAMPLE	PART NO.	PART NO.	PACKING CODE	PACKING CODE	DESCRIPTION
PART NO.	PART NO.	SUFFIX		SUFFIX	
MUR1660CTHC0G	MUR1660CT	н	CO	G	AEC-Q101 qualified Green compound

#### RATINGS AND CHARACTERISTICS CURVES

(T<sub>A</sub>=25°C unless otherwise noted)







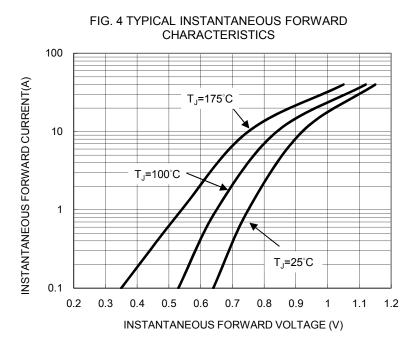






FIG. 5 TYPICAL JUNCTION CAPACITANCE

1000

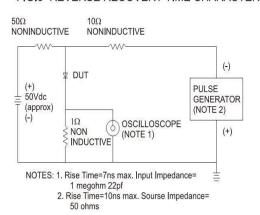
(d) BONE 100

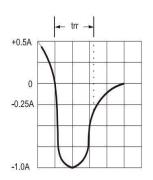
f=1.0MHz
Vslg=50mVp-p

10

REVERSE VOLTAGE (V)

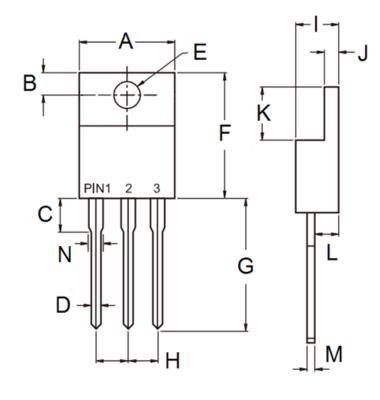
## FIG.6 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





## PACKAGE OUTLINE DIMENSIONS

## **TO-220AB**



DIM.	Unit	(mm)	Unit (inch)		
DIIVI.	Min	Max	Min	Max	
Α	-	10.50	-	0.413	
В	2.62	3.44	0.103	0.135	
С	2.80	4.20	0.110	0.165	
D	0.68	0.94	0.027	0.037	
E	3.54	4.00	0.139	0.157	
F	14.60	16.00	0.575	0.630	
G	13.19	14.79	0.519	0.582	
Н	2.41	2.67	0.095	0.105	
I	4.42	4.76	0.174	0.187	
J	1.14	1.40	0.045	0.055	
K	5.84	6.86	0.230	0.270	
L	2.20	2.80	0.087	0.110	
М	0.35	0.64	0.014	0.025	
N	1.14	1.77	0.045	0.070	

## MARKING DIAGRAM



P/N = Specific Device Code G = Green Compound

YWW = Date Code

F = Factory Code



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