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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

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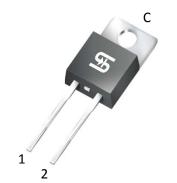




### 8A, 200V - 600V Glass Passivated Super Fast Rectifiers

#### **FEATURES**

- Glass passivated chip junction
- High efficiency, Low VF
- High current capability
- High reliability
- High surge current capability
- 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-220AC

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:** 1.8 g (approximately)

## TO-220AC



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)					
PARAMETER	SYMBOL	MUR820	MUR840	MUR860	UNIT
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>	8			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 (Note 1) I <sub>F</sub> =8 A	V <sub>F</sub>	0.975	1.30	1.70	V
Maximum reverse current @ rated $V_R$ $T_J$ =25°C $T_J$ =100°C	I <sub>R</sub>	5 250			μA
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	TJ	-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:  $I_F$ =0.5A,  $I_R$ =1.0A,  $I_{RR}$ =0.25A



ORDERING INFORMATION						
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX <sup>(*)</sup>	PACKAGE	PACKING	
MUR8x0 (Note 1)	Н	C0	G	TO-220AC	50 / Tube	

Note 1: "x" defines voltage from 200V (MUR820) to 600V (MUR860)

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

EXAMPLE						
EXAMPLE P/N	PART NO. SUFFIX PACKING CODE		PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION	
MUR820HC0G	MUR820	Н	C0	G	AEC-Q101 qualified Green compound	

#### **RATINGS AND CHARACTERISTICS CURVES**

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



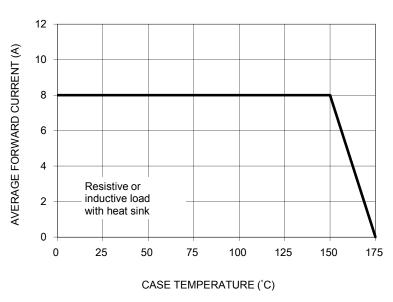


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

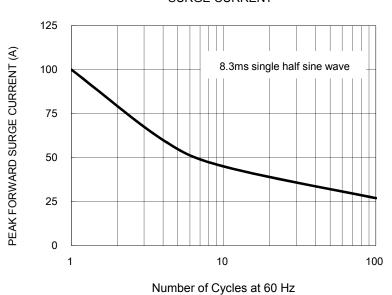


FIG. 3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

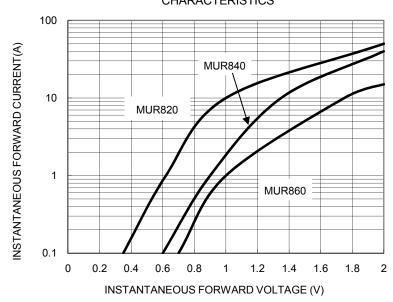
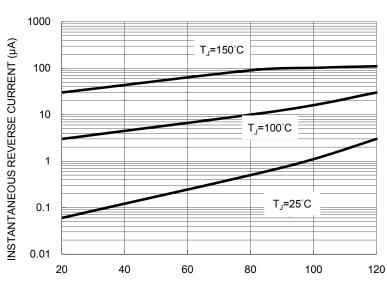
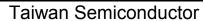


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

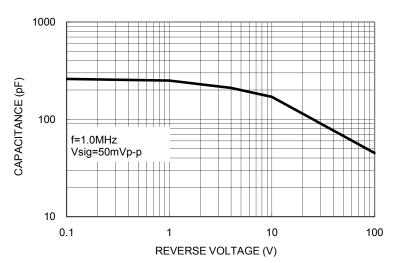


PERCENT OF RATED PEAK REVERSE VOLTAGE.(%)

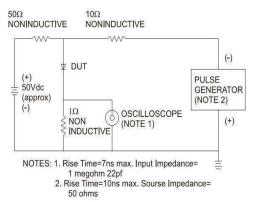


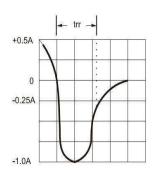


#### FIG. 5 TYPICAL JUNCTION CAPACITANCE

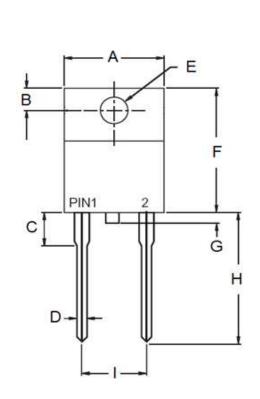


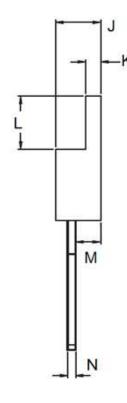
#### FIG.6 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





# PACKAGE OUTLINE DIMENSIONS TO-220AC





DIM.	Unit	(mm)	Unit (inch)		
	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	
Е	3.54	4.00	0.139	0.157	
F	14.60	16.00	0.575	0.630	
G	0.00	1.60	0.000	0.063	
Н	13.19	14.79	0.519	0.582	
I	4.95	5.20	0.195	0.205	
J	4.42	4.76	0.174	0.187	
K	1.14	1.40	0.045	0.055	
L	5.84	6.86	0.230	0.270	
М	2.20	2.80	0.087	0.110	
N	0.35	0.64	0.014	0.025	

#### **MARKING DIAGRAM**



P/N = Marking Code
G = Green Compound
YWW = Date Code
F = Factory Code



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