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

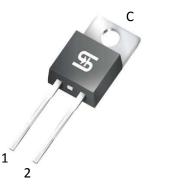
## FEATURES

- 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

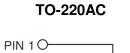
#### Case: TO-220AC

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)











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 <sub>RRM</sub>	200	400	600	V		
Maximum RMS voltage	V <sub>RMS</sub>	140	280	420	V		
Maximum DC blocking voltage	V <sub>DC</sub>	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		A			
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 <sub>J</sub> =25°C T <sub>J</sub> =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 <sub>θJC</sub>	3 2		°C/W			
Operating junction temperature range	TJ	-55 to +175 °C		°C			
Storage temperature range	T <sub>STG</sub>	-55 to +175			°C		

Note 1: Pulse test with PW=300µs, 1% duty cycle

Note 2: Test conditions:  $I_F$ =0.5A,  $I_R$ =1.0A,  $I_{RR}$ =0.25A



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

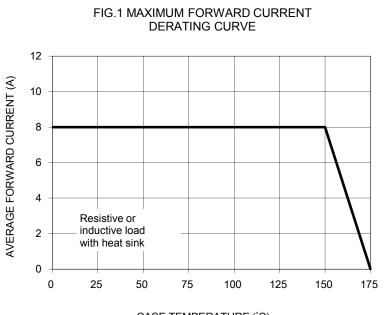
Note 1: "x" defines voltage from 200V (MUR820) to 600V (MUR860)

\*: Optional available

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

# **RATINGS AND CHARACTERISTICS CURVES**

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





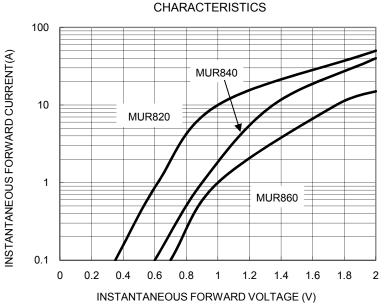
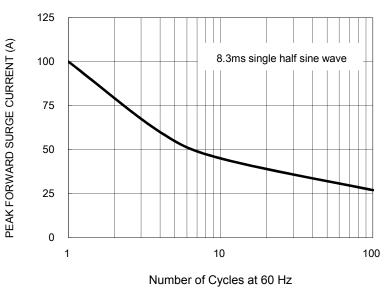
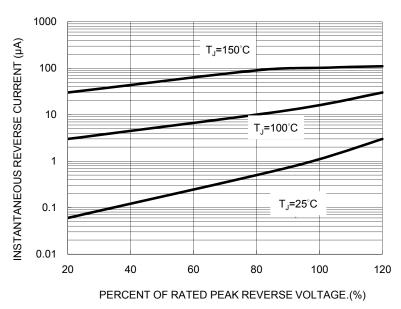


FIG. 3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

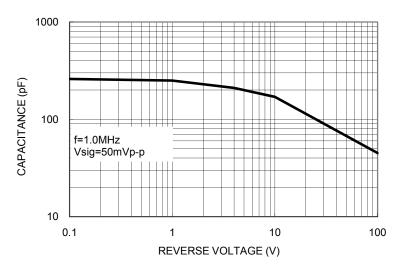




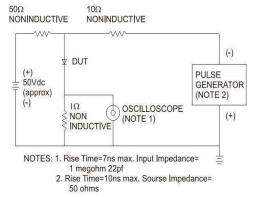


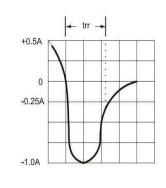


#### FIG. 5 TYPICAL JUNCTION CAPACITANCE

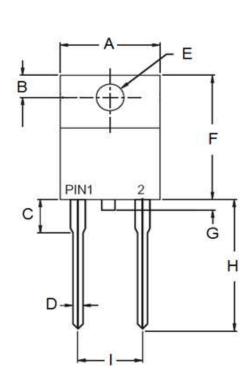


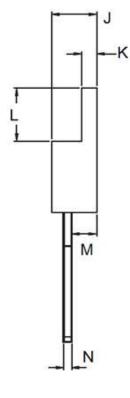
#### FIG.6 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





PACKAGE OUTLINE DIMENSIONS TO-220AC





DIM.	Unit	(mm)	Unit (inch)		
	Min	Max	Min	Max	
А	-	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	
Ν	0.35	0.64	0.014	0.025	

# MARKING DIAGRAM



- = Marking Code
- = Green Compound
- YWW = Date Code

P/N

G

F

= Factory Code



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