



Surface Mount Ultrafast Power Rectifiers

FEATURES

- Glass passivated chip junction
- Ideal for automated placement
- Built-in strain relief
- Ultrafast recovery time for high efficiency
- Moisture sensitivity level: level 1, per J-STD-020
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



DO-214AB (SMC)





Version: F14

MECHANICAL DATA

Case: DO-214AB (SMC)

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - green compound (halogen-free)

Base P/N with prefix "H" on packing code - AEC-Q101 qualified **Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test

with prefix "H" on packing code meet JESD 201 class 2 whisker test

Polarity: Indicated by cathode band **Weight:** 0.21 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)									
PARAMETER	SYMBOL	MUR	MUR	MUR	MUR	MUR	MUR	Unit	
T ATAMETER		305S	310S	315S	320S	340S	360S	J	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	400	600	V	
Maximum RMS voltage	V_{RMS}	35	70	105	140	280	420	V	
Maximum DC blocking voltage	V_{DC}	50	100	150	200	400	600	V	
Maximum average forward rectified current	I _{F(AV)}	3 A			Α				
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	75 A			Α				
Maximum instantaneous forward voltage (Note 1) I_F = 3 A, 25°C I_F = 3 A, 150°C	V _F	0.875 0.710			25 05	V			
Maximum reverse current @ rated VR T_J =25 $^{\circ}$ C T_J =150 $^{\circ}$ C	I _R	5 10 150 250		μА					
Maximum reverse recovery time (Note 2)	Trr	25 50		ns					
Typical thermal resistance	$R_{\theta JL}$	11 0		°C/W					
Operating junction temperature range	T _J	- 55 to +175 °c		οС					
Storage temperature range	T _{STG}	- 55 to +175 °C		οС					

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

Note 2: Reverse Recovery Test Conditions: I_F =0.5A, I_R =1.0A, I_{RR} =0.25A

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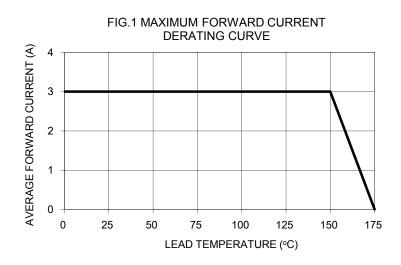
ORDERING INFORMATION					
PART NO.	AEC-Q101	PACKING CODE	GREEN COMPOUND	PACKAGE	PACKING
	QUALIFIED		CODE		
MUDO		R7		SMC	850 / 7" Plastic reel
MUR3xxS (Note 1)	Prefix "H"	R6	Suffix "G"	SMC	3,000 / 13" Paper reel
		M6		SMC	3,000 / 13" Plastic reel

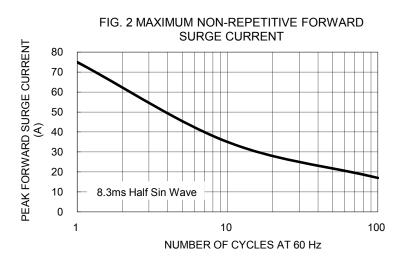
Note 1: "xx" defines voltage from 50V (MUR305S) to 600V (MUR360S)

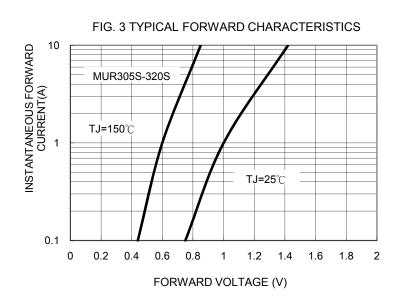
EXAMPLE					
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
MUR360S R7	MUR360S		R7		
MUR360S R7G	MUR360S		R7	G	Green compound
MUR360SHR7	MUR360S	Н	R7		AEC-Q101 qualified

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)







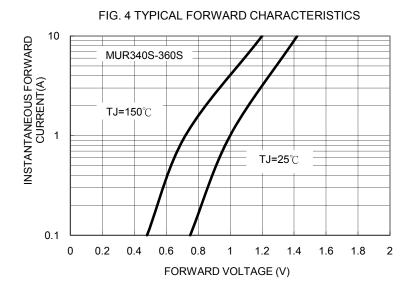




FIG. 5 TYPICAL REVERSE CHARACTERISTICS 1000 MUR305S-320S INSTANTANEOUS REVERSE CURRENT (µA) 100 TJ=150°C 10 1 0.1 TJ=25°C 0.01 0.001 10 20 30 50 60 70 80 90 100 40 PERCENT OF RATED PEAK REVERSE VOLTAGE.(%)

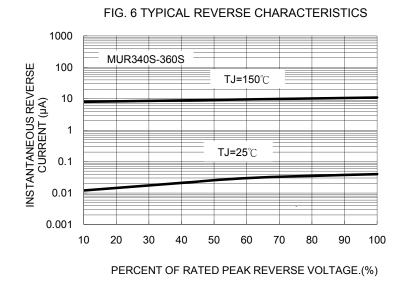
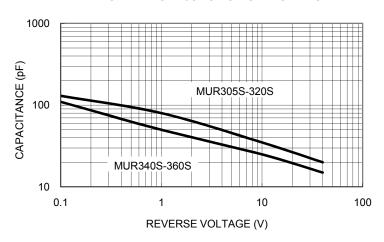
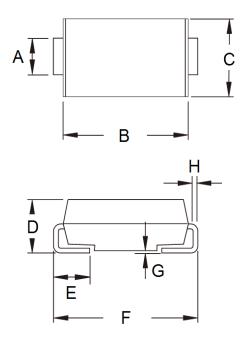


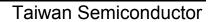
FIG. 7 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS

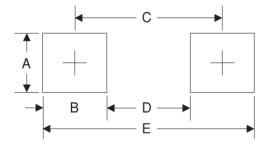


DIM.	Unit	(mm)	Unit (inch)		
DIIVI.	Min	Max	Min	Max	
Α	2.90	3.20	0.114	0.126	
В	6.60	7.11	0.260	0.280	
С	5.59	6.22	0.220	0.245	
D	2.00	2.62	0.079	0.103	
E	1.00	1.60	0.039	0.063	
F	7.75	8.13	0.305	0.320	
G	0.10	0.20	0.004	0.008	
Н	0.15	0.31	0.006	0.012	





SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
Α	3.3	0.130
В	2.5	0.098
С	6.8	0.268
D	4.4	0.173
E	9.4	0.370

MARKING DIAGRAM

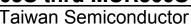


P/N = Specific Device Code

G = Green Compound

YW = Date Code

F = Factory Code





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