- Ultrafast recovery time for high efficiency
- Low forward voltage, low power loss
- 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-214AA (SMB)

MECHANICAL DATA

Case: DO-214AA (SMB)

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: 0.09 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise noted)

PARAMETER	SYMBOL	MUR 105S	MUR 110S	MUR 115S	MUR 120S	MUR 140S
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	400
Maximum RMS voltage	V_{RMS}	35	70	105	140	280
Maximum DC blocking voltage	V_{DC}	50	100	150	200	400
Maximum average forward rectified current	$I_{F(AV)}$	1				
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	40				3
Maximum instantaneous forward voltage (Note 1) @ 1 A, T_J=25℃ @ 1 A, T_J=150℃	V_F	 0.875 0.710				1. 1.
Maximum reverse current @ rated VR T_J=25 ℃ T_J=150 ℃	I_R	2 50				5 15
Maximum reverse recovery time (Note 2)	Trr	25				5
Typical thermal resistance	$R_{\theta jL}$	17				
Operating junction temperature range	T_J	- 55 to +175				
Storage temperature range	T_{STG}	- 55 to +175				

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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(Note 1)		M4		SMB	3,000 / 13"

Note 1: "xx" defines voltage from 50V (MUR105S) to 600V (MUR160S)

EXAMPLE					
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DES
MUR160S R5	MUR160S		R5		
MUR160S R5G	MUR160S		R5	G	Gree
MUR160SHR5	MUR160S	H	R5		AEC-

RATINGS AND CHARACTERISTICS CURVES

(TA=25℃ unless otherwise noted)

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

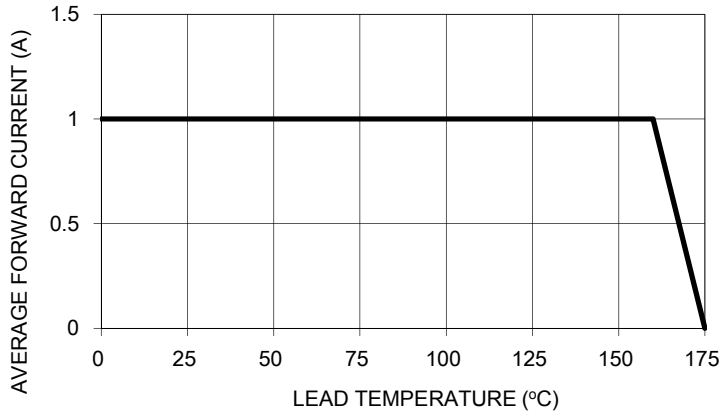


FIG. 2 MAXIMUM NON-REPETITIVE FO SURGE CURRENT

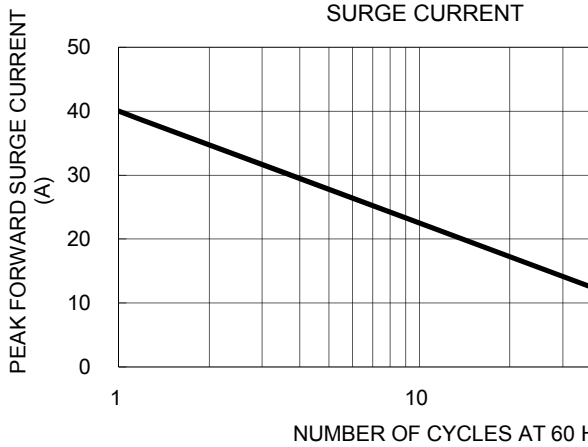


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

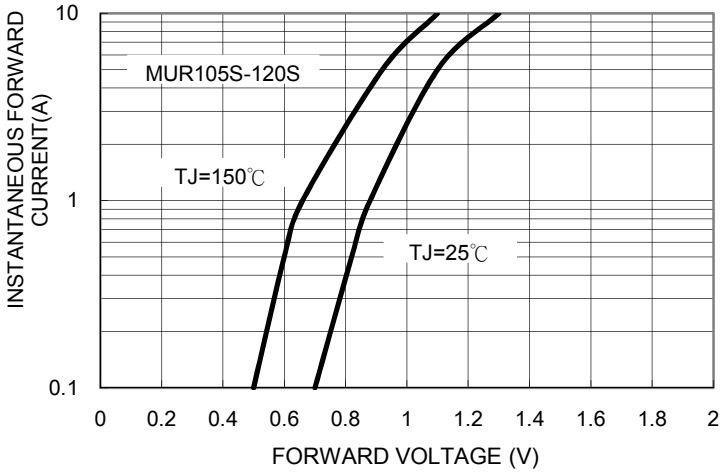
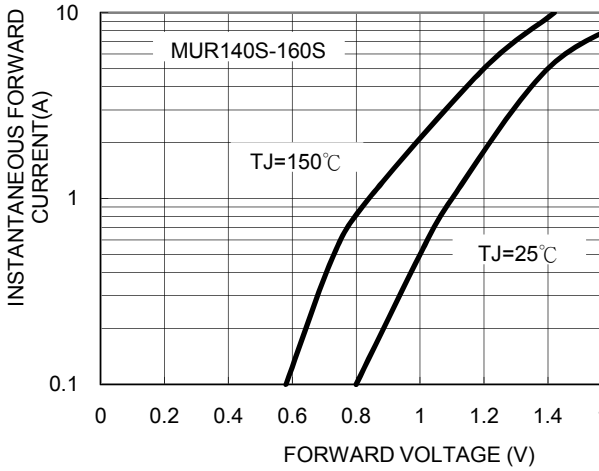
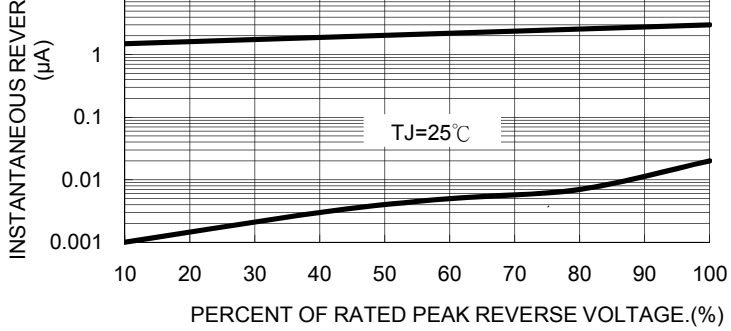


FIG. 4 TYPICAL FORWARD CHARACTER





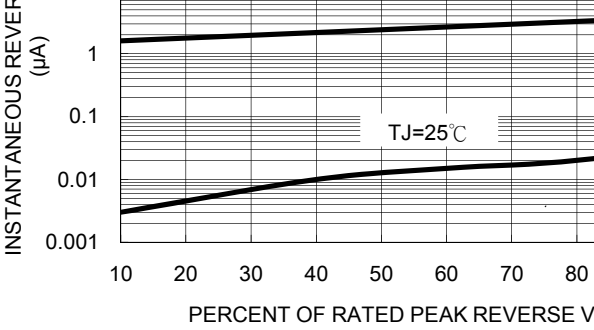
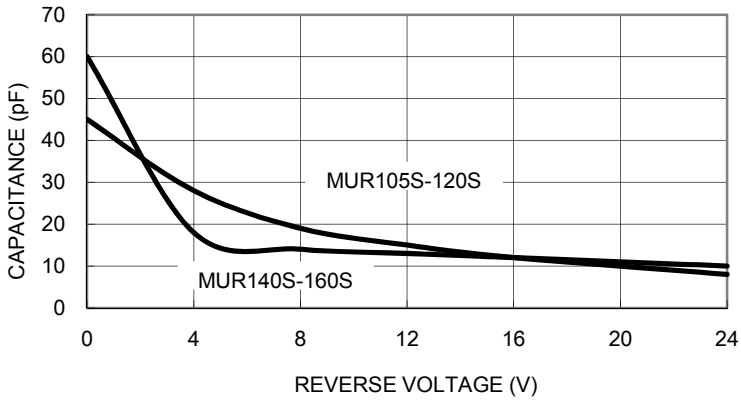
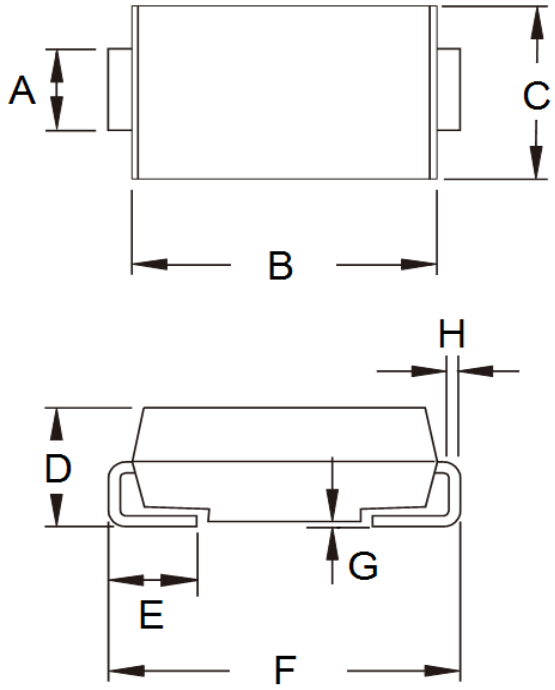


FIG. 7 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Ma
A	1.95	2.10	0.077	0.08
B	4.25	4.75	0.167	0.18
C	3.48	3.73	0.137	0.14
D	1.99	2.61	0.078	0.10
E	0.90	1.41	0.035	0.05
F	5.10	5.30	0.201	0.20
G	0.10	0.20	0.004	0.00
H	0.15	0.31	0.006	0.01

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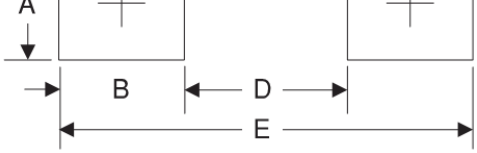

B	2.5	0.098
C	4.3	0.169
D	1.8	0.071
E	6.8	0.268

MARKING DIAGRAM

P/N = Specific Device Code
G = Green Compound
YW = Date Code
F = Factory Code

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