

3A, 45V Trench Schottky Rectifier

FEATURES

- Patented Trench Schottky technology
- Low power loss, high efficiency
- Ideal for automated placement
- High surge current capability
- 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-214AC (SMA)



MECHANICAL DATA

Case: DO-214AC (SMA)

Molding compound, UL flammability classification rating 94V-0

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: Indicated by cathode band

Weight: 0.06g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)						
PARAMETER		SYMBOL	TSSA3U45		UNIT	
Marking code			3U45			
Maximum repetitive peak reverse voltage		V _{RRM}	45		V	
Maximum average forward rectified current		I _{F(AV)}	3		A	
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load		I _{FSM}	50		A	
			TYP	MAX		
Maximum instantaneous forward voltage (Note 1)	I _F = 3A	T _J = 25°C	V _F	0.42	0.48	V
		T _J = 125°C	V _F	0.30	0.40	
Maximum instantaneous reverse current at rated reverse voltage		T _J = 25°C	I _R	-	500	μA
		T _J = 125°C		50	100	mA
Typical thermal resistance		R _{θJL} R _{θJA}	27 70		°C/W	
Operating temperature range		T _J	- 55 to +150		°C	
Storage temperature range		T _{STG}	- 55 to +150		°C	

Note 1: Pulse Test with Pulse Width=300μs, 1% Duty Cycle

ORDERING INFORMATION

PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
TSSA3U45	E3	G	Clip SMA	1,800 / 7" Plastic reel
	E2		Clip SMA	7,500 / 13" Plastic reel

EXAMPLE

PREFERRED PART NO.	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TSSA3U45 E3G	TSSA3U45	E3	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

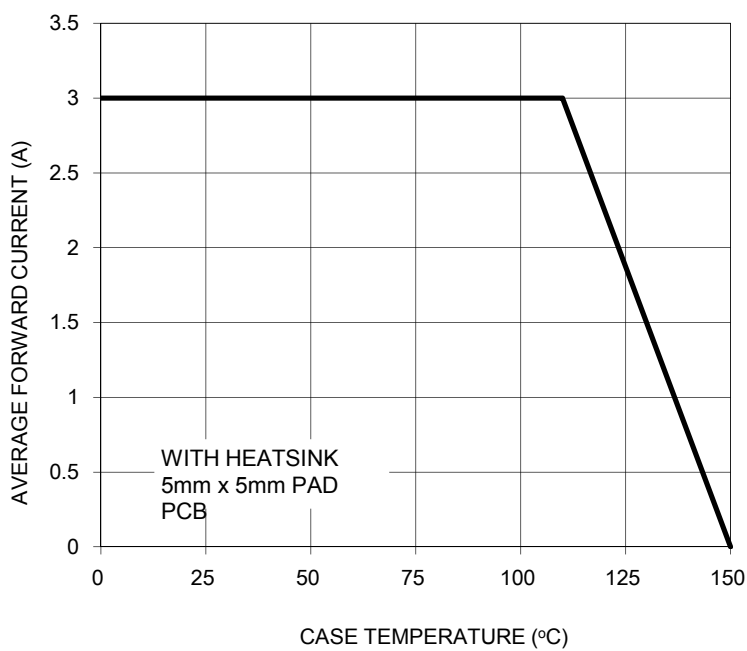


FIG. 2 TYPICAL FORWARD CHARACTERISTICS PER LEG

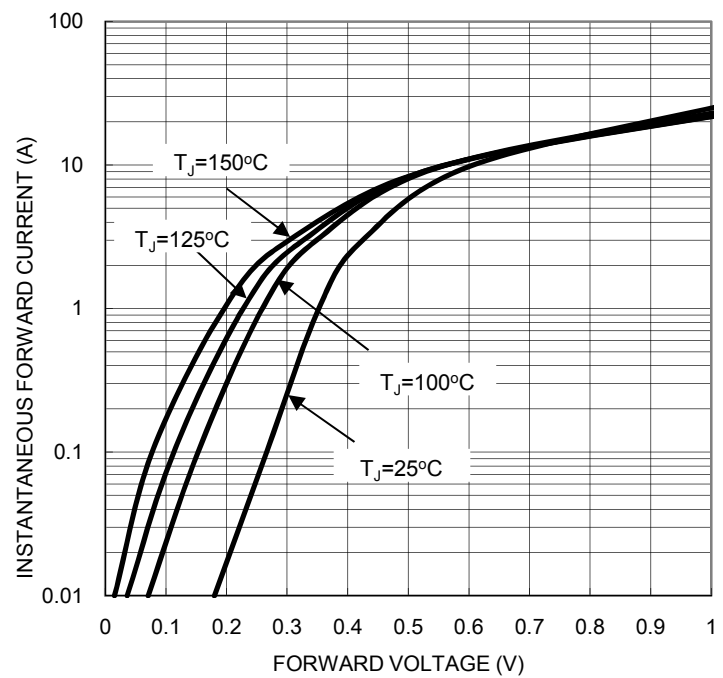


FIG. 3 TYPICAL REVERSE CHARACTERISTICS PER LEG

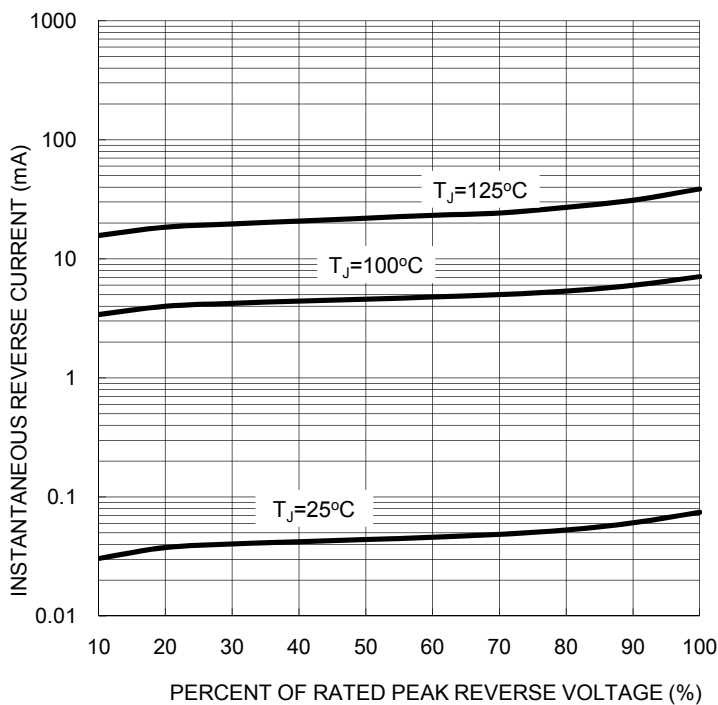
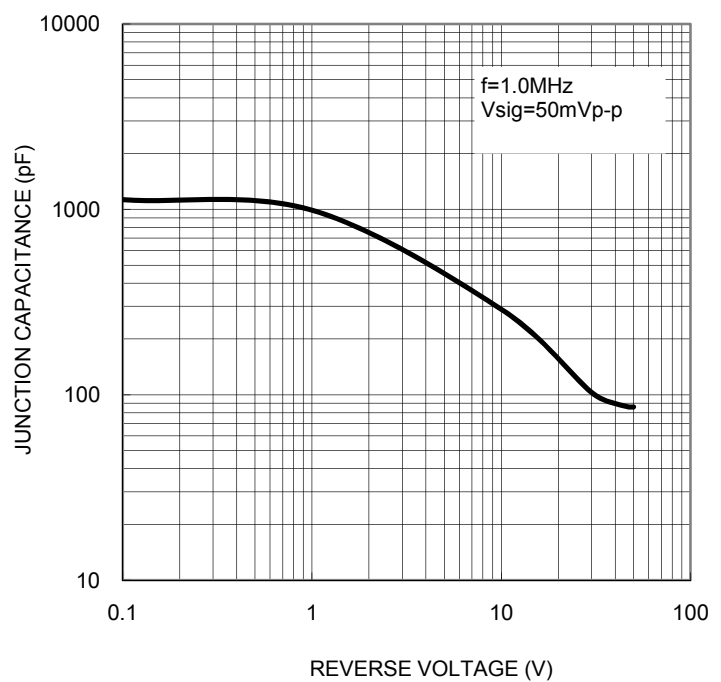
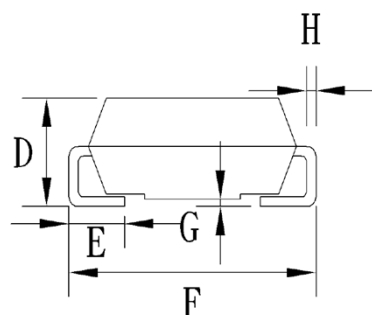
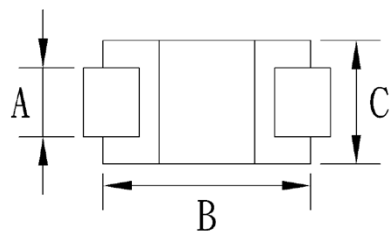


FIG. 4 TYPICAL JUNCTION CAPACITANCE PER LEG



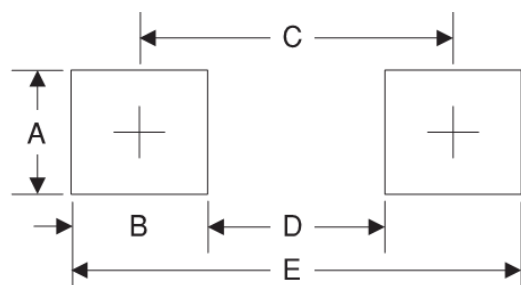
PACKAGE OUTLINE DIMENSIONS

DO-214AC (SMA)



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.27	1.58	0.050	0.062
B	4.06	4.60	0.160	0.181
C	2.29	2.83	0.090	0.111
D	1.99	2.50	0.078	0.098
E	0.90	1.41	0.035	0.056
F	4.95	5.33	0.195	0.210
G	0.10	0.20	0.004	0.008
H	0.15	0.31	0.006	0.012

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	1.68	0.066
B	1.52	0.060
C	3.93	0.155
D	2.41	0.095
E	5.45	0.215

MARKING DIAGRAM



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

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