

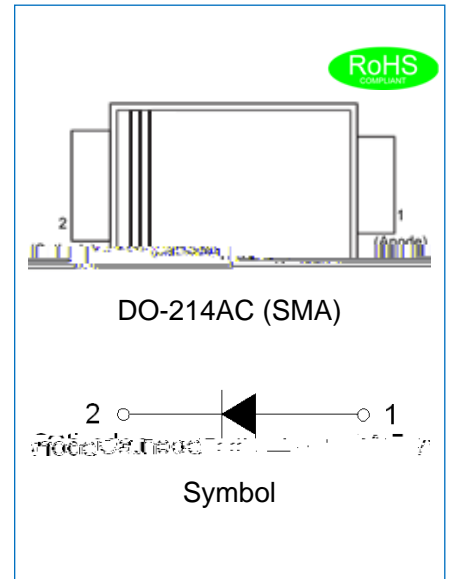


US1A~US1G ULTRA FASTRE COVERY RECTIFIER

Rev.3.1

DESCRIPTION

- Plastic package has underwriters laboratory flammability classification 94V-0
- For surface mounted applications in order to optimize board space
- Glass passivated chip junction
- Lead free in comply with EU RoHS 2011/65/EU directives
- Ultrafast recovery time for high efficiency



MECHANICAL DATA

- Case: JEDEC DO-214AC molded plastic
- Terminals: Solder plated, solderable per J-STD-002
- Polarity: Color band denotes cathode end
- Weight: 0.0673gram

ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

(Rating at 25 ambient temperature unless otherwise specified.)

Parameter	Symbol	US1A	US1B	US1D	US1G	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	V
Maximum average forward current at $T_A=75$	$I_{F(AV)}$	1.0				A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30				A
Maximum forward voltage @ $I_F=1A$	V_F	1.0			1.3	V
Maximum DC reverse current at rated DC blocking voltage	$T_j=25$	I_R	5			A
	$T_j=100$		50			A
Typical junction capacitance $V_R=4.0V, f=1MHz$	C_J	7				pF
Maximum reverse recovery time $I_F=0.5A, I_R=1A, I_{rr}=0.25A$	t_{rr}	50				ns
Operating junction and storage temperature range	T_j, T_{stg}	-55 to +150				

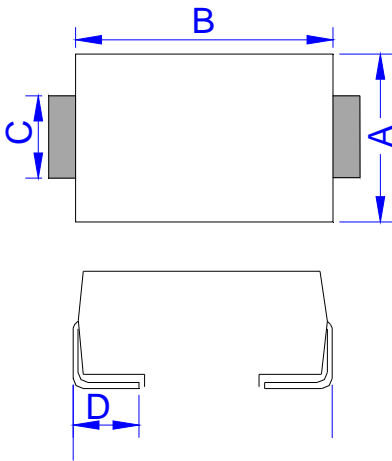
THERMAL RESISTANCES

Symbol	Parameter	US1A	US1B	US1D	US1G	Unit
$R_{th(j-a)}$	Junction to ambient (note1)	50				/W

Note1: Thermal resistance from junction to ambient mounted on P.C.B. with 5.0 mm x 5.0 mm copper pad areas.

MARKING

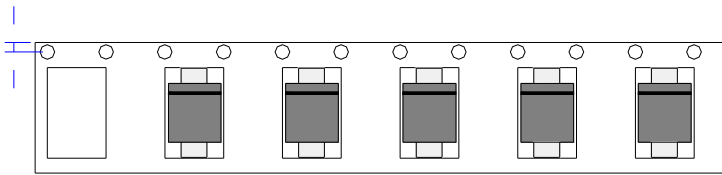
PACKAGE MECHANICAL DATA



Ref.	Dimensions			
	Millimeters		Inches	
	Min.			
A	2.60			
B	4.15			
C	1.25			
D	0.95			
E	4.90			
F	0.051			
G	0.15			

DO-214AC (SMA)

TAPE AND REEL SPECIFICATION-SMA



CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics (25)

FIG.2: Typical reverse characteristics

Instantaneous forward current (A)

