



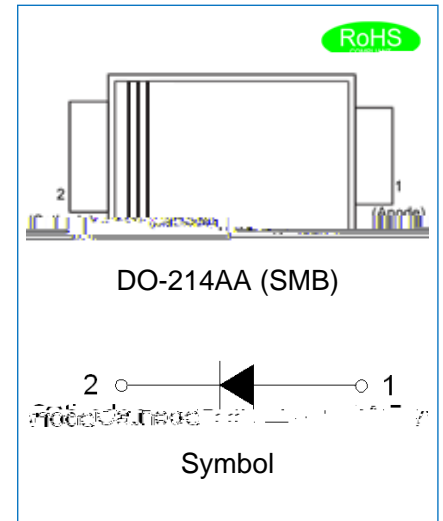
US3AB~US3MB

ULTRA FAST RECOVERY RECTIFIER

Rev.2.4

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 directive
- ◇ Ultrafast recovery time for high efficiency



MECHANICAL DATA

- ◇ Case: JEDEC DO-214AA molded plastic
- ◇ Terminals: Solder plated, solderable per J-STD-002
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: 0.1 gram

ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

(Rating at 25 °C ambient temperature unless otherwise specified.)

Parameter	Symbol	US3AB	US3BB	US3DB	US3GB	US3JB	US3KB	US3MB	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward current at $T_C=100$	$I_{F(AV)}$	3.0							A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	100							A
Maximum forward voltage @ $I_F=3A$	V_F	1.0		1.3		1.7		V	
Maximum DC reverse current at rated DC blocking voltage	$T_j=25$	5.0							μA
	$T_j=150$	500							μA
Typical junction capacitance $V_R=4.0V, f=1MHz$	C_J	45				28			pF
Operating junction and storage temperature range	T_j, T_{stg}	-55 to +150							
Maximum reverse recovery time $I_F=0.5A, I_R=1A, I_{rr}=0.25A$	t_{rr}	50				75			ns

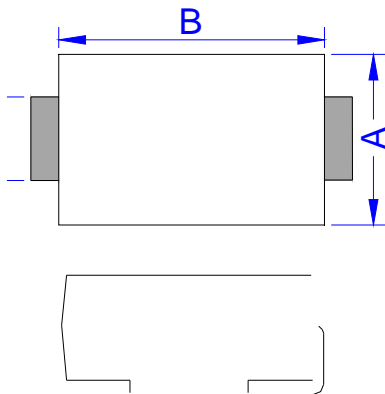
THERMAL RESISTANCES

Symbol	Parameter	US3AB	US3BB	US3DB	US3GB	US3JB	US3KB	US3MB	Unit
$R_{th(j-L)}$	Junction to lead (note1)	20							/W

Note1 Thermal resistance from junction to lead mounted on P.C.B. with 4.0 mm x 4.0 mm copper pad areas.

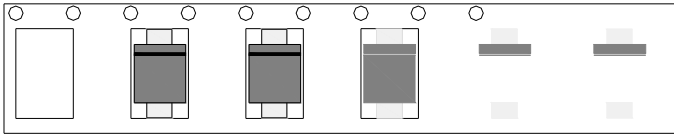
MARKING

PACKAGE MECHANICAL DATA



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

TAPE AND REEL SPECIFICATION-SMB



CHARACTERISTICS CURVE