

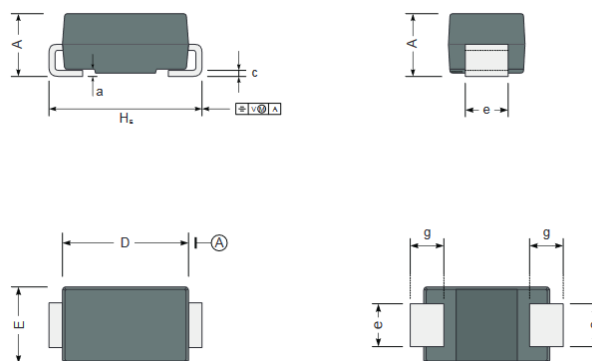
SMD Ultra Fast Recovery Rectifier Diode

Primary characteristics		
Parameter	Value	Unit
Maximum Repetitive Peak Reverse Voltage	50 ~ 1000	V
Maximum Average Forward Rectified Current	1.0	A

Features

- **SMA (DO-214AC)** case for easy automatic insertion.
- Pb-free and **RoHS** compliant
- Glass passivated junction chip
- Fast switching for high efficiency
- For surface mounted application
- High temperature soldering guaranteed:
250°C/10 seconds at terminals
- Plastic material used carries UL Classification 94V-0

Case dimensions



SMA (DO-214AC)

Unit	A	D	E	H _E	c	e	g	a
mm	2.05 ±0.15	4.25 ±0.25	2.5 ±0.2	4.95 ±0.25	0.23 ±0.08	1.45 ±0.15	1.2 ±0.3	0.3

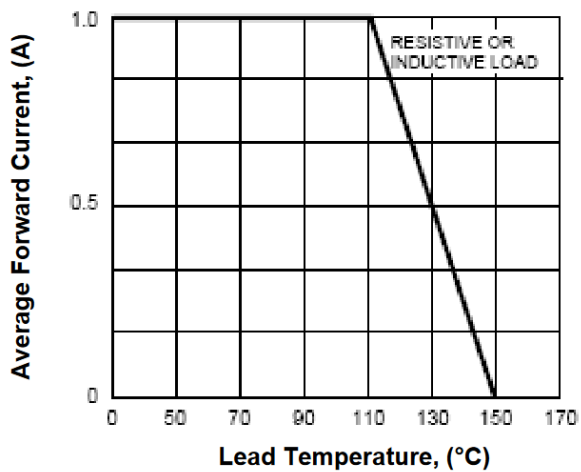
Absolute maximum ratings and general electrical characteristics (T_a = 25°C)

Parameter		Symbol	Value							Unit
			US1A	US1B	US1D	US1G	US1J	US1K	US1M	
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	
Maximum DC blocking voltage		V _{DC}	50	100	200	400	600	800	1000	
Maximum average forward rectified current 0.375”(9.5mm) lead length		I _{F(AV)}	1.0							A
Peak forward surge current 8.3ms single half sine wave superimposed on rated load (JEDEC method)		I _{FSM}	30							
Maximum instantaneous forward voltage @1.0A		V _F	1.0			1.25	1.7			V
Maximum DC reverse current at rated DC blocking voltage	T _a =25°C	I _R	5.0							μA
	T _a =125°C		100							
Maximum reverse recovery time I _F =0.5A, I _R =1.0A, I _{rr} =0.25A		T _{rr}	50				75			ns

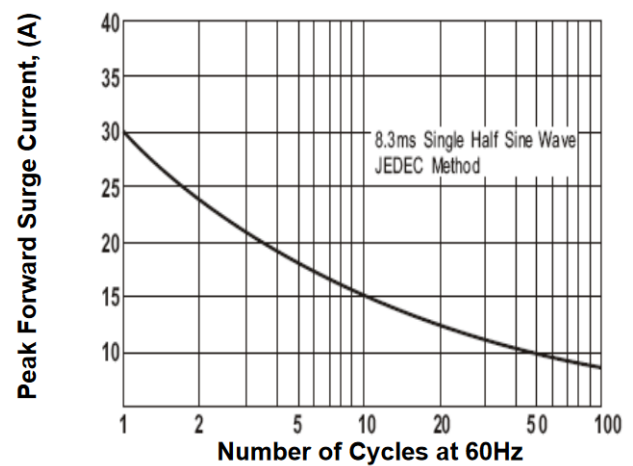
Absolute maximum ratings and general electrical characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Typical junction capacitance $V_R=4\text{V}$, $f=1\text{MHz}$	C_j	17	pF
Operating junction and storage temperature range	T_j , T_{STG}	-55 ~ 150	$^\circ\text{C}$

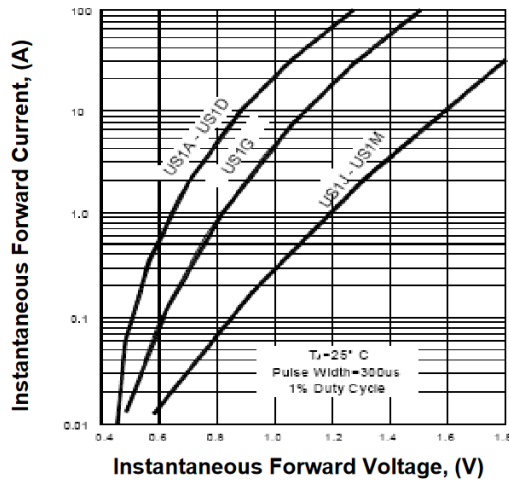
Forward current derating curve



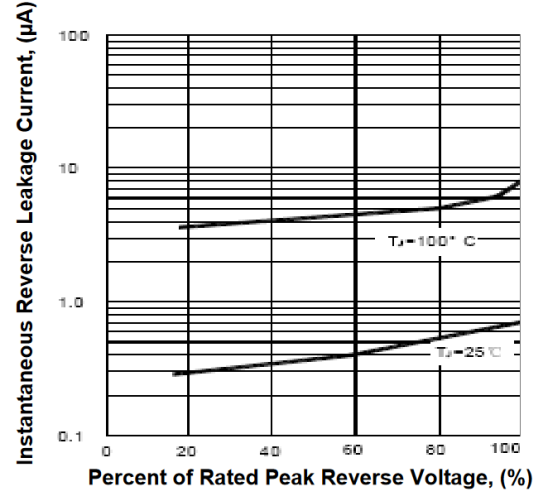
Maximum non-repetitive forward surge current



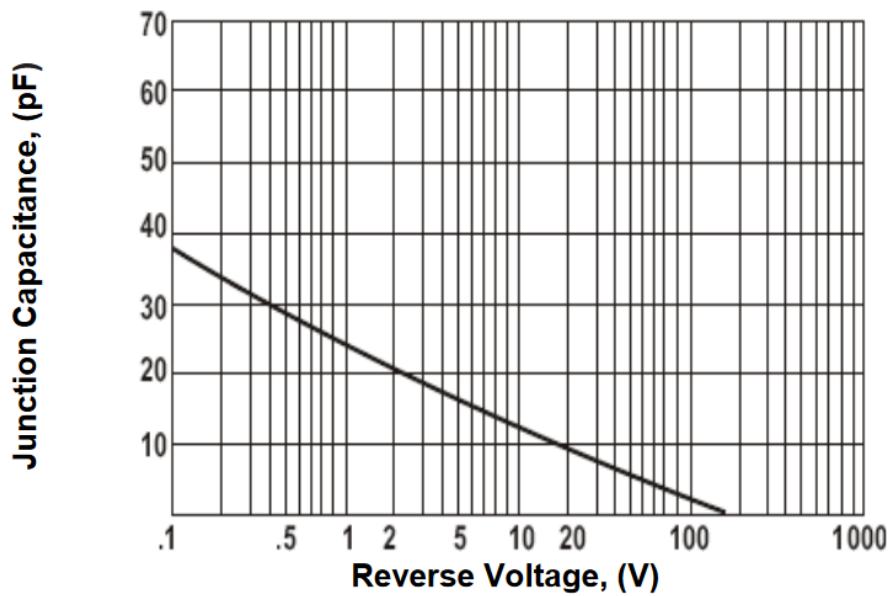
Typical forward characteristics

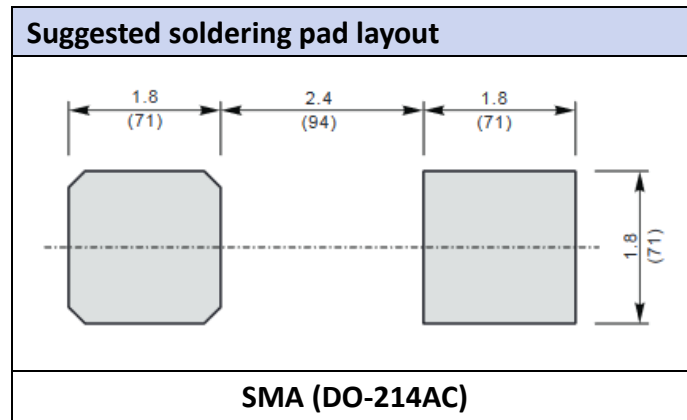


Typical reverse characteristics



Typical junction capacitance





Ordering information			
Part Number	Package	Shipping Quantity	Dimensions
US1A ~ US1M	SMA (DO-214AC)	3000 pcs / reel	---

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