

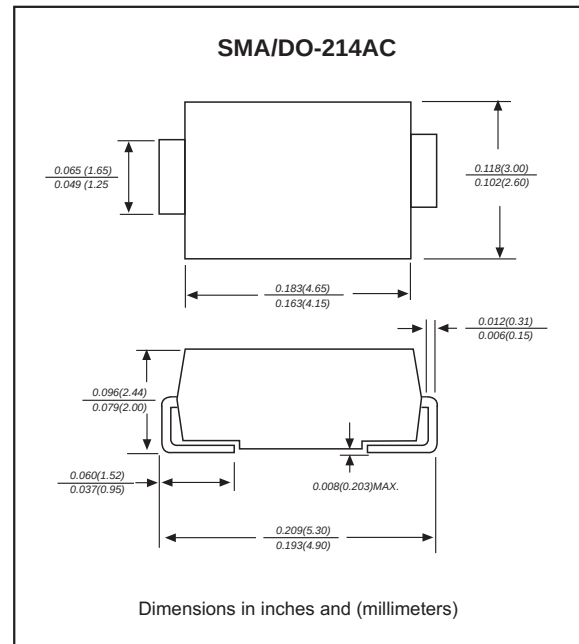
Features

- 400W peak pulse power capability with a 10/1000 μ s waveform.
- Stand-off voltage: 3.3V.
- Planar technology.
- Excellent clamping capability.
- Fast response time.
- IEC61000-4-2 (ESD) $\pm$ 30kV (air), $\pm$ 30kV (contact).
- Compliant to Halogen-free.
- Suffix "-Q1" for AEC-Q101

Mechanical data

- Case : Molded plastic, DO-214AC / SMA
- Terminals : Solder plated, solderable per J-STD-002
- Mounting Position : Any

Package outline



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

Parameter	Symbol	Value	Unit
Storage and operating junction temperature range	T_{STG}/T_J	-55 to +150	$^\circ\text{C}$
Peak pulse power dissipation at 10/1000 μ s waveform	P_{PP}	400	W
Steady state power dissipation on infinite heat sink at $T_L = 75^\circ\text{C}$	$P_{M(AV)}$	3.0	W

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

Part Number	V_R	$I_R@V_R$	$V_{BR}@I_T$	I_T	$V_C@I_{PP}$	$I_{PP}^{(1)}$	$C_O^{(2)}$	Marking
	V	$\mu\text{A}(\text{max})$	V(min)	mA	V(max)	A(max)	pF(typ.)	
SMAJ3.3A-Q1	3.3	100	4.1	1	7.3	54.7	4100	U03A

① Surge waveform: 10/1000 μ s

② C_O is measured at: $V_{bias}=0\text{V}$, $V_{RMS}=0.1\text{V}$, $f=1\text{MHz}$

Ratings and V-I Characteristics Curves (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

FIG.1: V- I curve characteristics (Uni-directional)

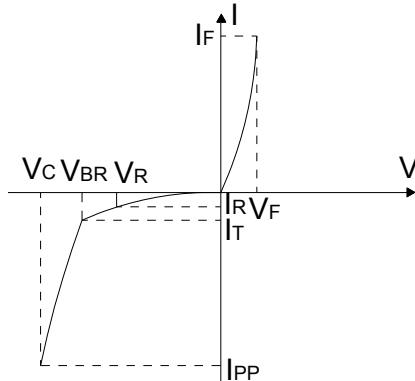


FIG.2: Pulse waveform

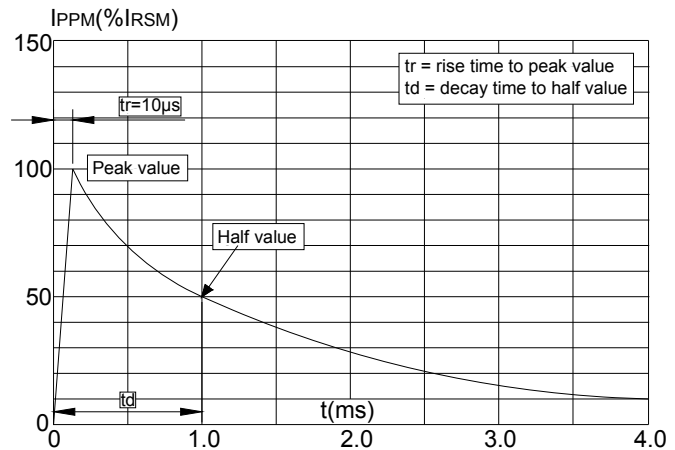
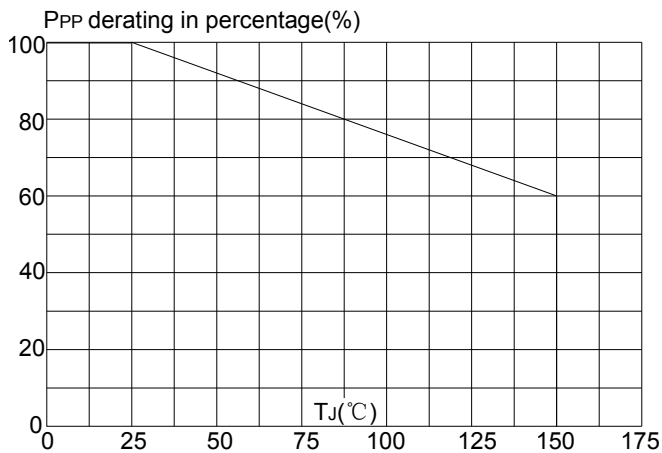
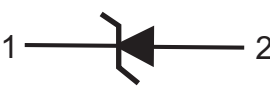


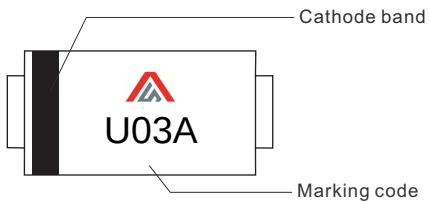
FIG.3: Pulse derating curve



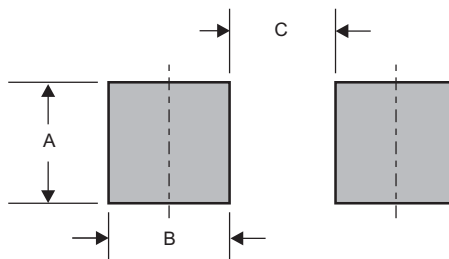
Pinning information

Pin	Simplified outline	Symbol
Uni-Directional Pin1 cathode Pin2 anode		

Marking

Type number	Example
SMAJ3.3A-Q1	

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SMA	0.071 (1.80)	0.079 (2.00)	0.091 (2.30)