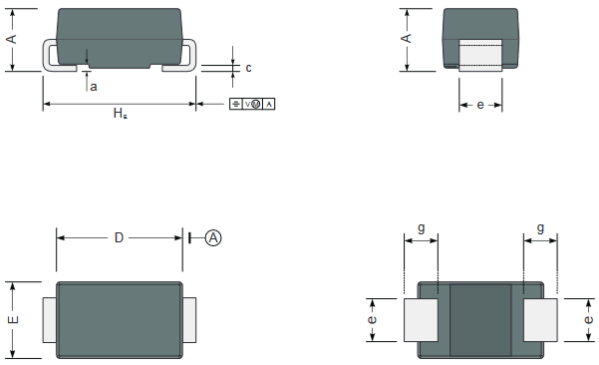
SMD General Rectifier Diode

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
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 260°C/10 seconds/.375" (9.5mm) lead length at 5 lbs (2.3kg) tension
- Case: transfer molded plastic
- Epoxy: UL94V-O rate flame retardant
- Polarity: color band denotes cathode end
- Lead: plated axial lead, solderable per MIL-STD-202E method 208C

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)

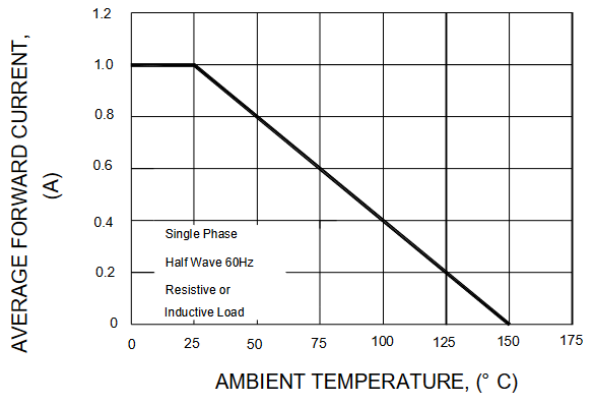
Parameter		Symbol	Value							Unit
			M1	M2	M3	M4	M5	M6	M7	
Maximum repetitive peak reverse voltage		V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage		V_{RMS}	35	70	140	280	420	560	700	
Maximum DC blocking voltage		V_{DC}	50	100	200	400	600	800	1000	
Maximum average forward rectified current 0.375"(9.5mm) lead length		$I_{(AV)}$	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	1.1							V
Maximum DC reverse current at rated DC blocking voltage per element	T_a=25°C	I_R	5.0							μA
	T_a=100°C		50							
Maximum full load reverse current, full cycle average 0.375"(9.5mm) lead length at T_L=75°C		$I_{R(AV)}$	30							

Absolute maximum ratings and general electrical characteristics (T_a = 25°C)			
Parameter	**Symbol**	**Value**	**Unit**
Typical junction capacitance [1]	C_j	13	pF
Typical thermal resistance [2]	$R_{\theta JA}$	50	°C/W
Operating junction and storage temperature range	T_j, T_{STG}	-55 ~ 150	°C

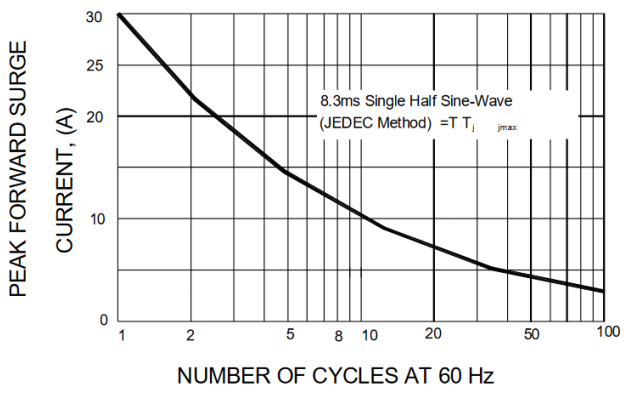
Notes:
1) Measured at 1.0MHz and applied reverse voltage of 4.0VDC
2) Thermal resistance from junction to terminal 6.0mm² copper pads to each terminal

Ratings at 25°C ambient temperature unless otherwise specified
Single phase, half wave, 60Hz, resistive or inductive load
For capacitive load derate current by 20%

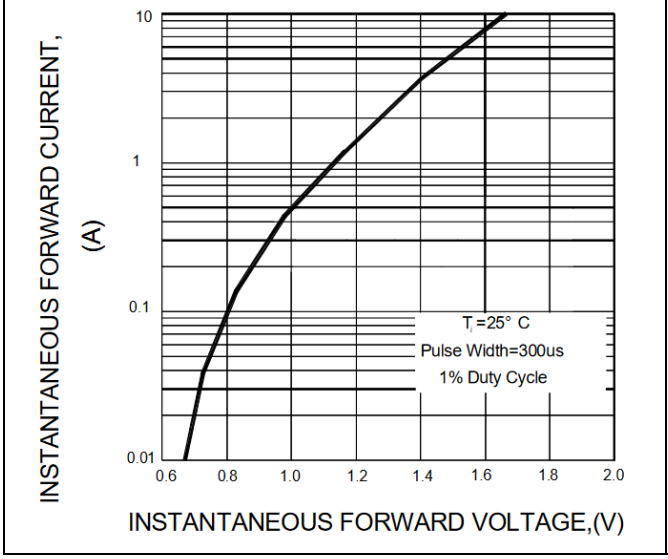
Typical forward current derating curve



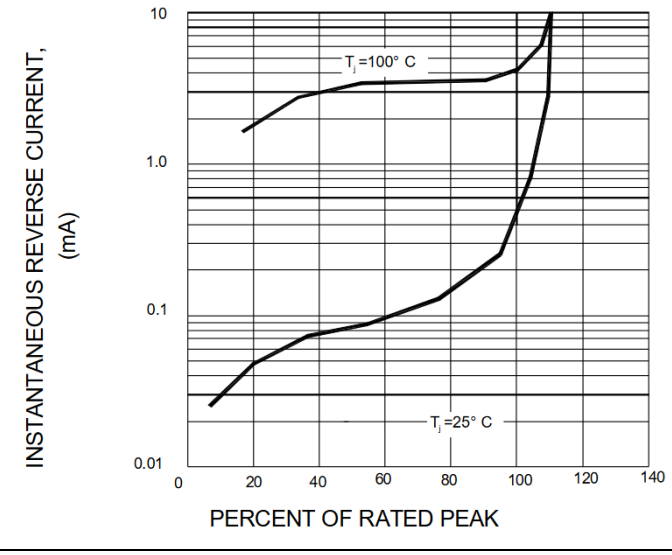
Maximum non-repetitive peak forward surge current



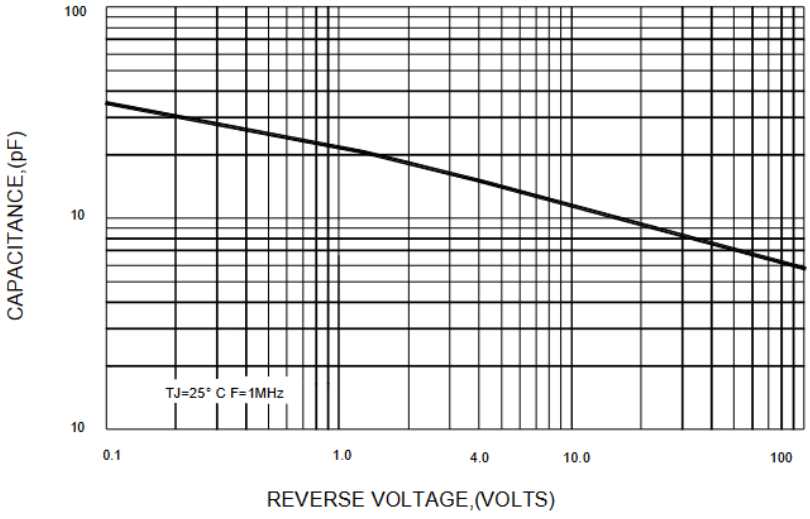
Typical instantaneous forward characteristics

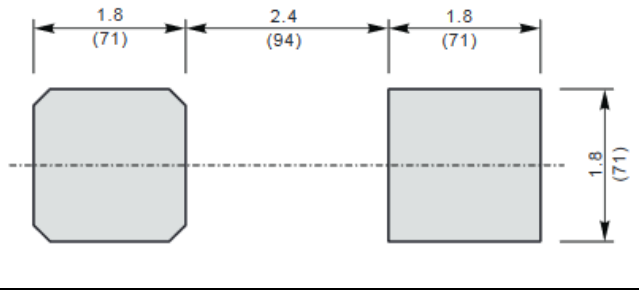


Typical reverse characteristics



Typical junction capacitance



Suggested soldering pad layout

SMA (DO-214AC)

Ordering information			
Part Number	**Package**	**Shipping Quantity**	**Dimensions**
M1 ~ M7	SMA (DO-214AC)	**2000 pcs / reel**	---

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