Elektronische Bauelemente

SM4001A THRU SM4007A

VOLTAGE 50V ~ 1000V

1.0 AMP Surface Mount Silicon Rectifiers

A suffix of "-C" specifies halogen & lead-free

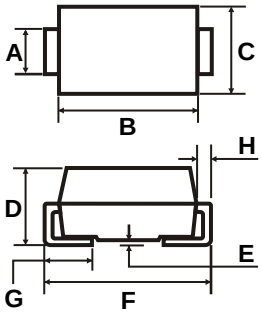
FEATURES

- RoHS Compliant Product
- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- High surge current capability

SMA

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Solder plated, solderable per MIL-STD-202F, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.063 gram



	Dimensions in Millimeters		Dimensions in Inches	
A	1.25	1.65	0.049	0.065
B	3.99	4.60	0.157	0.181
C	2.50	2.90	0.098	0.114
D	1.98	2.44	0.078	0.096
E	0.051	0.203	0.002	0.008
F	4.78	5.28	0.188	0.208
G	0.76	1.52	0.030	0.060
H	0.152	0.305	0.006	0.012

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25℃ ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	SM4001A	SM4002A	SM4003A	SM4004A	SM4005A	SM4006A	SM4007A	UNITS
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 Rectified Current .375"(9.5mm) Lead Length at Ta=75 ℃	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.1							V
Maximum Reverse Current T_J=25℃ at Rated DC Blocking Voltage T_J=100℃	I_R	5.0 50							μA
Typical Junction Capacitance (Note 1)	C_J	15							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	50							℃/ W
Junction Temperature	T_J	-65 ~ +175							℃
Storage Temperature	T_{STG}	25 ± 5							℃
Storage Humidity	RH	45 ± 5							%

Note:
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance from Junction to Ambient.

Elektronische Bauelemente

SM4001A THRU SM4007A

VOLTAGE 50V ~ 1000V

1.0 AMP Surface Mount Silicon Rectifiers

RATING AND CHARACTERISTIC CURVES (SM4001A THRU SM4007A)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

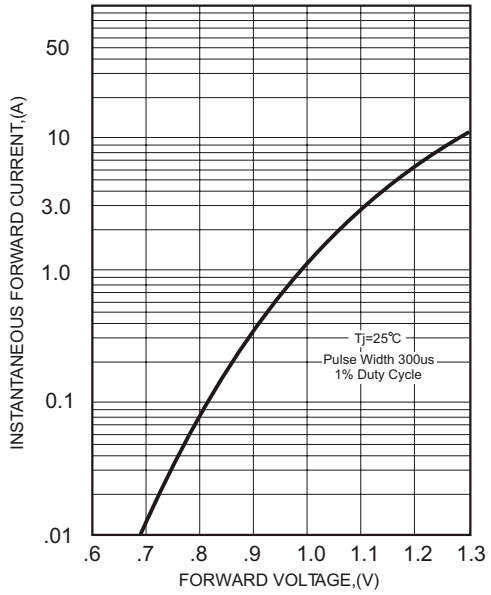


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

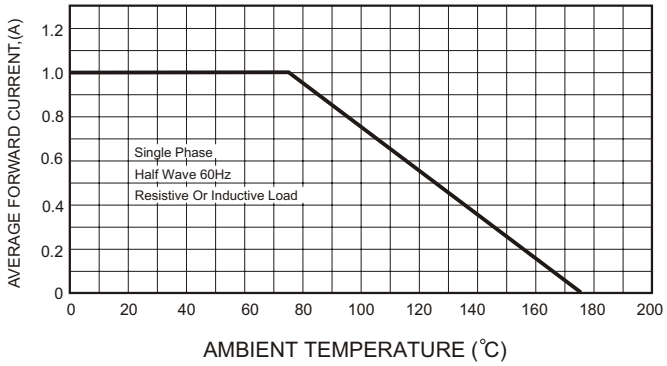


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

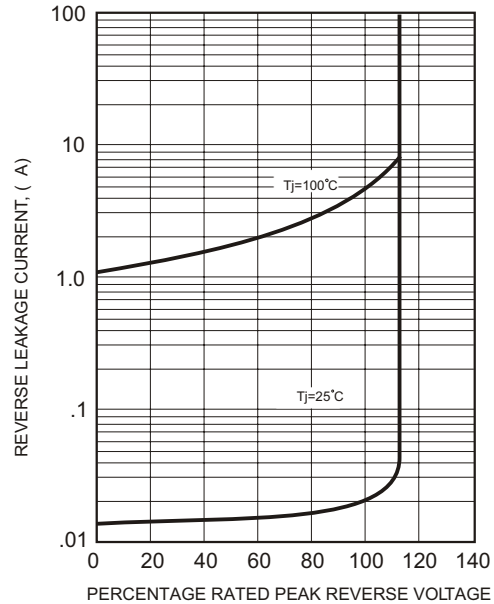


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

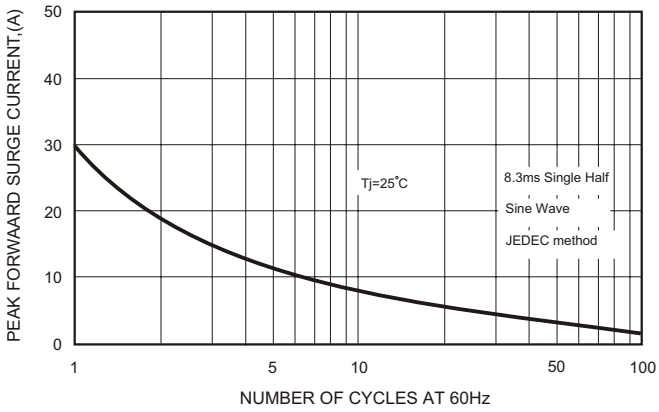
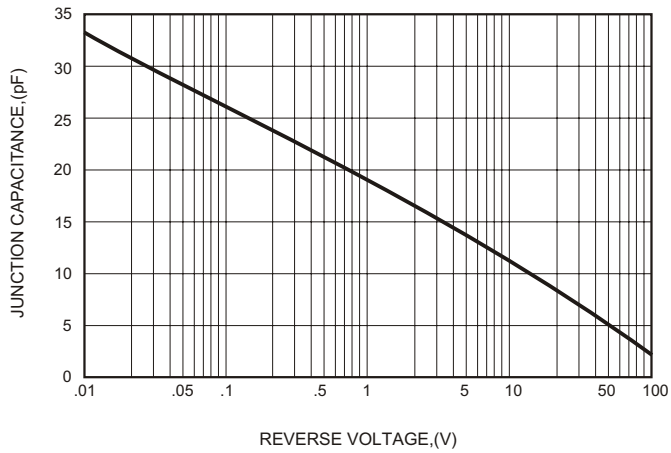



FIG.5-TYPICAL JUNCTION CAPACITANCE