Elektronische Bauelemente

SMH3100AF-C

Voltage 100V

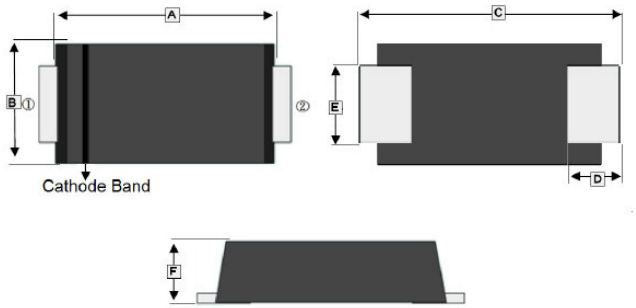
3.0 Amp Low I_R Schottky Barrier Rectifiers

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction
- High operating temperature

SMAF



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	3.20	4.60	D	0.70	1.50
B	2.25	2.95	E	1.25	1.65
C	4.40	5.60	F	0.90	1.20

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any

PACKAGE INFORMATION

Package	MPQ	Leader Size
SMAF	3K	7 inch

ORDER INFORMATION

Part Number	Type
SMH3100AF-C	Lead (Pb)-free and Halogen-free

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25℃ ambient temperature unless otherwise s pecified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameter	Symbol	Rating	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RSM}	100	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current	I_F	3	A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	110	A
Voltage Rate of Chance (Rated V_R)	dv/dt	10000	V/μs
Typical Thermal Resistance	$R_{\theta JL}$	22	℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	175, -50~175	℃

ELECTRICAL CHARACTERISTICS

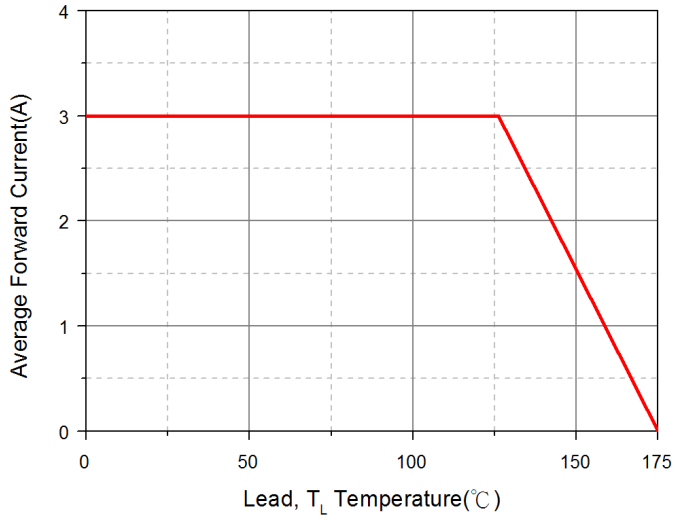
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Instantaneous Forward Voltage	V_F	0.74	0.79	V	I_F=3A, T=25℃
		0.58	-		I_F=3A, T_J=125℃
Maximum DC Reverse Current [2]	I_R	0.1	-	uA	V_R=10V, T_J=25℃
		0.25	50		V_R=100V, T_J=25℃
		100	800		V_R=100V,T_J=125℃
Typical Junction Capacitance [1]	C_J	115	-	pF	

Notes:

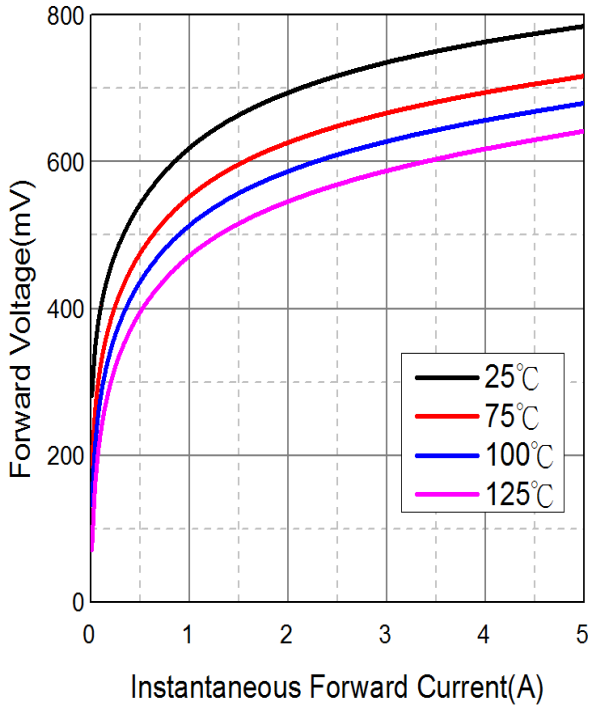
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Pulse Test: Pulse Width=300μs, Duty Cycle≦2.0%.

RATINGS AND CHARACTERISTIC CURVES

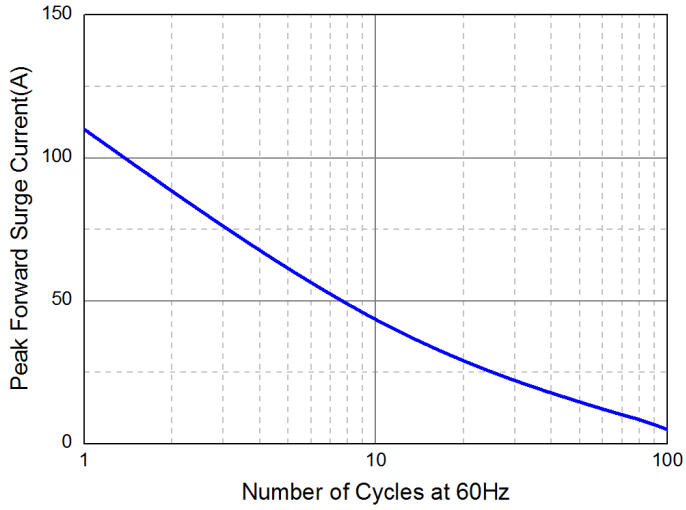
Typical Forward Current Derating Curve



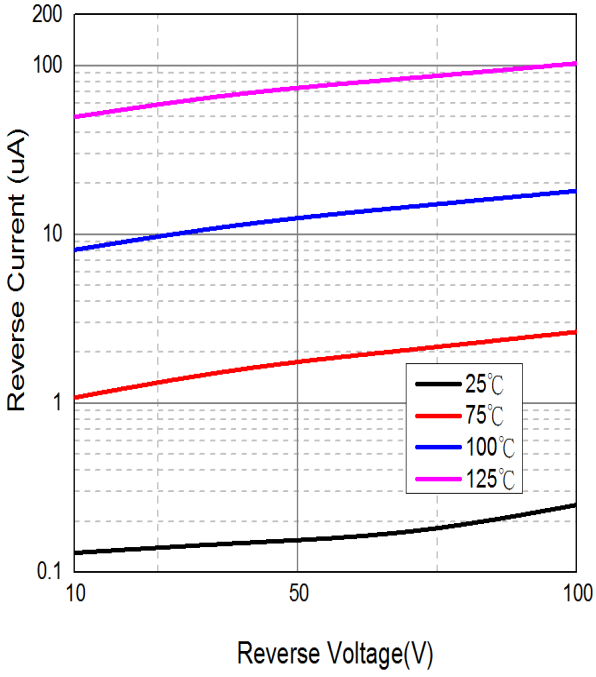
Typical Forward Characteristic



Maximum Non-Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance