

ELECTRICAL SPECIFICATIONS
Voltage Ratings

Type number	Voltage Code	V _{RRM} , maximum repetitive peak reverse voltage V	V _{RSM} , maximum non-repetitive peak rev. voltage V	I _{RRM} max. @ T _J = T _J max. mA
SM16HF..	80	800	900	30
	100	1000	1100	
	120	1200	1300	
	140	1400	1500	
	160	1600	1700	
	200	2000	2100	

Forward Conduction

Parameter	SM16HF..	Units	Conditions
I _{F(AV)} Max. average forward current @ Case temperature	16	A	180° conduction, half sine wave
	90	°C	
I _{F(RMS)} Max. RMS forward current	25	A	DC @ T _C = 75°C (04 to 20), T _C = 36°C (25 to 32)
I _{FSM} , Maximum peak, one-cycle forward, non-repetitive surge current	350	A	t = 10ms No voltage reappplied
	370		t = 8.3ms
	295		t = 10ms 100% V _{RRM} reappplied
	310		t = 8.3ms
I ² t Maximum I ² t for fusing	610	A ² s	t = 10ms No voltage reappplied
	560		t = 8.3ms
	430		t = 10ms 100% V _{RRM} reappplied
	390		t = 8.3ms
I ² √t Maximum I ² √t for fusing	6100	A ² √s	t = 0.1 to 10ms, no voltage reappplied
V _{F(TO)} Low level value of threshold voltage	0.77	V	T _J = 200°C
r _f Max. value of forward slope resistance	7.8	mΩ	
V _{FM} Max. forward voltage drop	1.3	V	

Thermal and Mechanical Specifications

Parameter	SM16HF..	Units	Conditions
T J	- 40 to 150	°C	
Tstg	- 40 to 150		
R thJC Thermal Impedance, max.	1.6	K/W	DC operation
RthCS Max. thermal resistance, case to heatsink	0.5		Mounting surface, smooth, flat and greased
T Max. allowed mounting torque +0 -20%	1.5	Nm	Not lubricated threads
	1.2		Lubricated threads
wt Approximate weight	8	g	
Case style	DO-203AA (DO-4)		See Outline Table

Ordering Information Table

Device Code

SM	16	HF	R	100	M
1	2	3	4	5	6

- 1 - Corporation code
- 2 - Average Forward Current: I_{FAV}
- 3 - Diode
- 4 - None = Stud Normal Polarity (Cathode to Stud)
- R = Stud Reverse Polarity (Anode to Stud)
- 5 Voltage code: Code x 100 = VRRM
- 6 None = Stud base DO-203AA (DO-4) 10-32UNF-2A M
= Stud base DO-203AA (DO-4) M5 X 0.8



Outline Table

