

SMC Surface Mount General Purpose Rectifier

Features

- For surface mounted applications
- Low reverse leakage
- High forward surge current capability
- Glass passivated Standard rectifiers
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Reverse Voltage
50-1000 V
Forward Current
10 Ampere

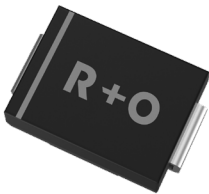
Applications

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer and telecommunication

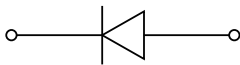
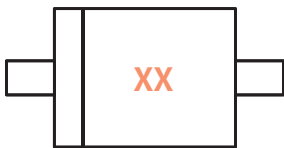
Mechanical Data

- Case: DO-214AB(SMC)
- Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end

DO-214AB(SMC)



Function Diagram



Maximum Ratings (Ta=25°C Unless otherwise specified)

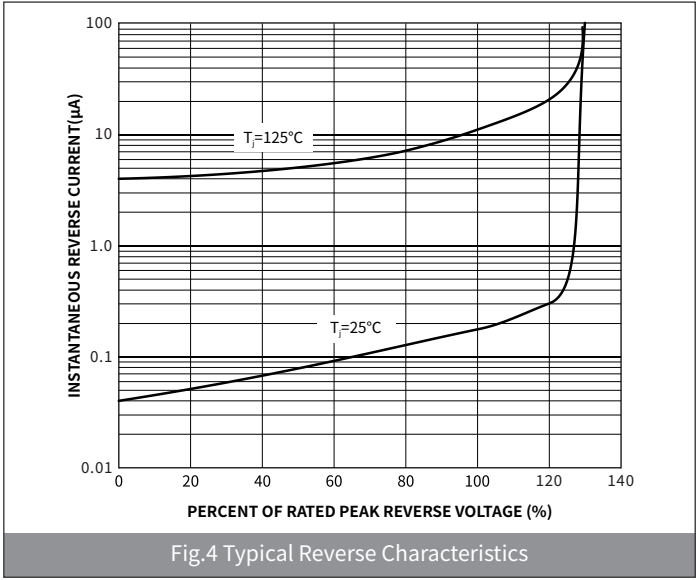
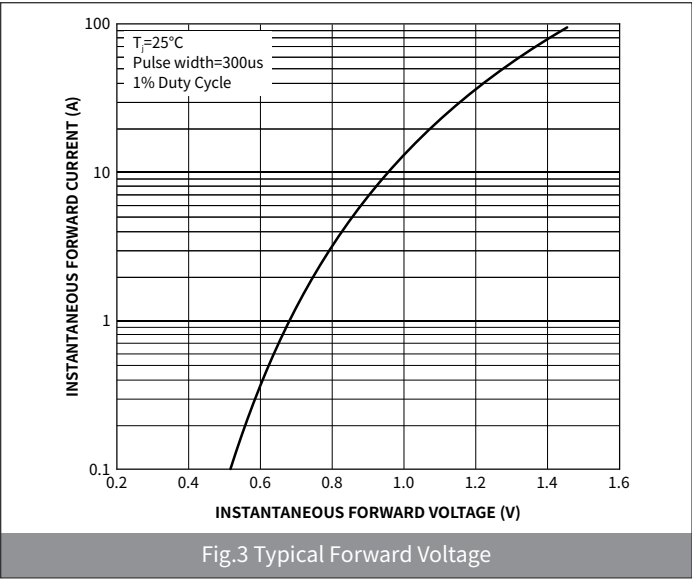
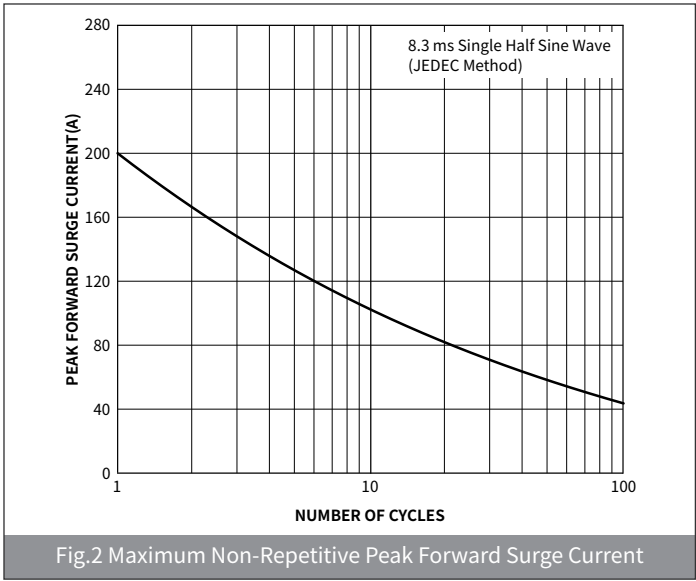
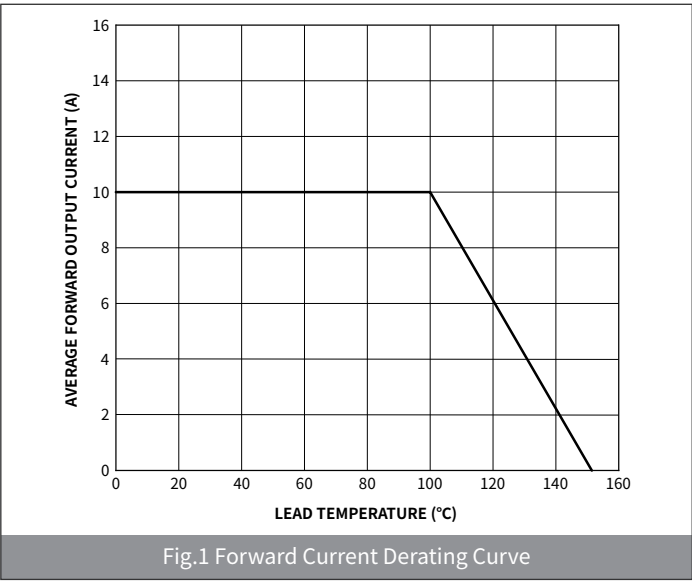
PARAMETER	SYMBOL	UNIT	S10AC	S10BC	S10DC	S10GC	S10JC	S10KC	S10MC
Device marking code			S10AC	S10BC	S10DC	S10GC	S10JC	S10KC	S10MC
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V _{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V _{DC}	V	50	100	200	400	600	800	1000
Maximum Average Forward Rectified Current @ 60Hz sinewave, Resistance load,TL (Fig.1)	I _{F(AV)}	A	10.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I _{FSM}	A	200						
Storage temperature	T _{stg}	°C	-55 ~+150						
Junction temperature	T _j	°C	-55 ~+150						
Typical Thermal Resistance	R _{θJA} ⁽¹⁾	°C /W	47						
	R _{θJL} ⁽¹⁾	°C /W	10						

Note : (1)Thermal resistance from junction to ambient and from junction tolead mounted on P.C.B.with 0.2"× 0.2"(5.0mm x5.0 mm) copper pad areas

Electrical Characteristics (Ta=25°C Unless otherwise noted)

Table with 11 columns: PARAMETER, TEST CONDITIONS, SYMBOL, UNIT, S10AC, S10BC, S10DC, S10GC, S10JC, S10KC, S10MC. Rows include Maximum instantaneous forward voltage, Maximum DC reverse current, Typical junction capacitance, etc.

Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



S10AC THRU S10MC

SURFACE MOUNT GENERAL PURPOSE RECTIFIER

● Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SMC	R3	0.257	3000	6000	48000	13"

● Package Outline Dimensions (SMC/DO-214AB)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.85	3.27	0.112	0.129
B	6.60	7.11	0.261	0.281
C	5.59	6.22	0.221	0.246
D	1.99	2.61	0.078	0.103
E	0.76	1.52	0.030	0.060
F	-	0.20	-	0.008
G	7.75	8.13	0.306	0.321
H	0.15	0.31	0.006	0.012

● Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
M	3.82	-	0.151	-
J	3.03	-	0.120	-
K	-	3.84	-	0.152