

### Features

- Low profile package
- Ideal for automated placement
- Glass passivated pallet chip junction
- Super fast reverse recovery time
- Low switching losses, high efficiency
- High forward surge capability

### Applications

For use in high frequency rectification and freewheeling application in switching mode converters and inverters for consumer, computer, automotive, 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

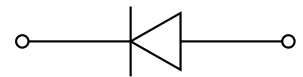
### Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	US3AC	US3BC	US3DC	US3GC	US3JC	US3KC	US3MC
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	3.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	$I_{FSM}$	A	100						
Storage temperature	$T_{stg}$	°C	-55 ~+150						
Junction temperature	$T_j$	°C	-55 ~+150						
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	47						
	$R_{\theta J-L}$	°C /W	15						

### Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	US3AC	US3BC	US3DC	US3GC	US3JC	US3KC	US3MC
Maximum instantaneous forward voltage	$I_F=3.0A$	$V_F$	V	1.0			1.4	1.7		
Maximum reverse recovery time	$I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$	$T_{rr}$	ns	50				75		
Maximum DC reverse current at rated DC blocking voltage	$V_{RM}=V_{RRM}$	$I_R$	uA	Ta=25°C			2.0			
				Ta=125°C			200			
Typical junction capacitance	4.0V DC, 1MHz	$C_J$	pF	65						

### DO-214AB(SMC)



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

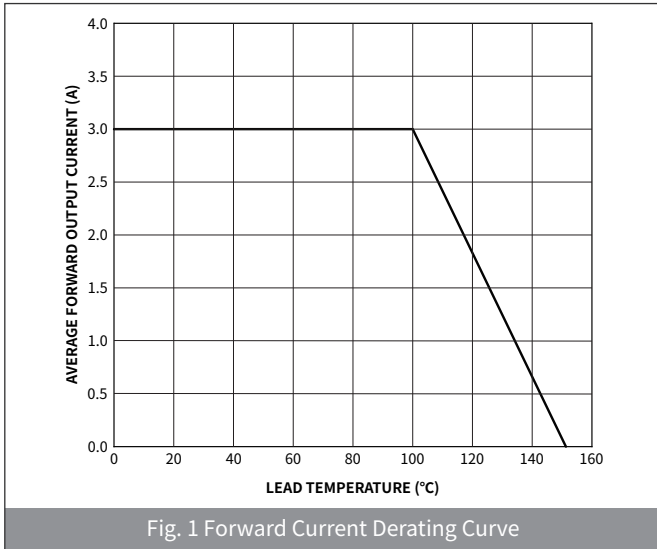


Fig. 1 Forward Current Derating Curve

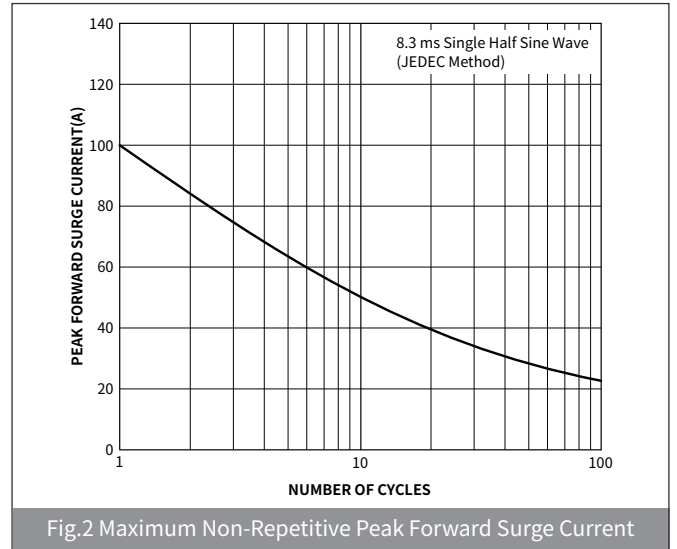


Fig. 2 Maximum Non-Repetitive Peak Forward Surge Current

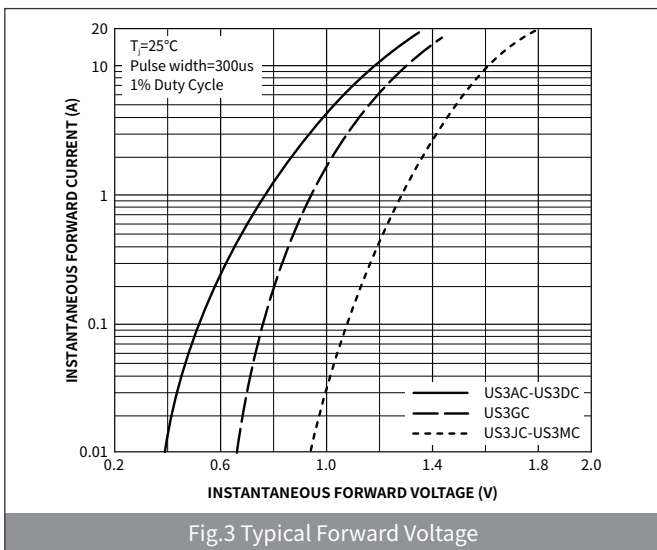


Fig. 3 Typical Forward Voltage

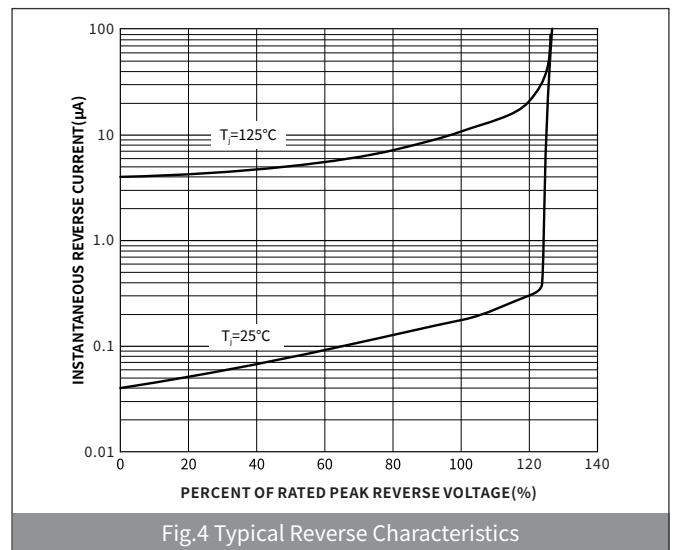


Fig. 4 Typical Reverse Characteristics

### ▶ Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SMC	R3	0.257	3000	/	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