

Features

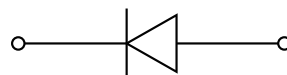
- Low reverse leakage
- Ideal for automated placement
- Glass passivated pallet chip junction
- Super fast reverse recovery time
- Fast switching for high efficiency
- High forward surge capability

Applications

For use in high frequency rectification and free wheeling 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	ES5AC	ES5BC	ES5CC	ES5DC	ES5EC	ES5GC	ES5JC
Maximum repetitive peak reverse voltage	V_{RRM}	V	50	100	150	200	300	400	600
Maximum RMS Voltage	V_{RMS}	V	35	70	105	140	210	280	420
Maximum DC blocking Voltage	V_{DC}	V	50	100	150	200	300	400	600
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load, TL (Fig.1)	$I_{F(AV)}$	A	5.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	150						
Storage temperature	T_{stg}	°C	-55 ~ +150						
Junction temperature	T_j	°C	-55 ~ +150						
Typical Thermal Resistance	$R_{\theta J-A}^{(1)}$	°C /W	47						
	$R_{\theta J-L}^{(1)}$	°C /W	15						

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

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

PARAMETER	TEST CONDITIONS		SYMBOL	UNIT	ES5AC	ES5BC	ES5CC	ES5DC	ES5EC	ES5GC	ES5JC
Maximum instantaneous forward voltage	I _F =5.0A		V _F	V	1.0				1.3		1.7
Maxinum reverse recovery time	I _F =0.5A,I _R =1.0A,I _{rr} =0.25A		T _{rr}	ns	35						
Maximum DC reverse currentat rated DC blocking voltage	V _{RM} =V _{RRM}	Ta=25°C	I _R	μA	2.0						
		Ta=125°C			200						
Typical junction capacitance	4.0V DC,1MHz		C _J	pF	75						

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

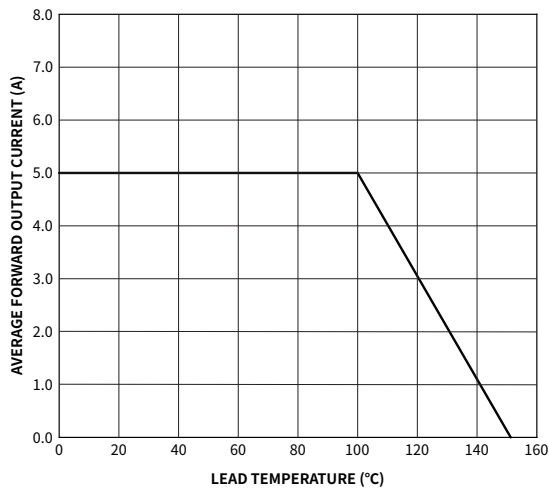


Fig. 1 Forward Current Derating Curve

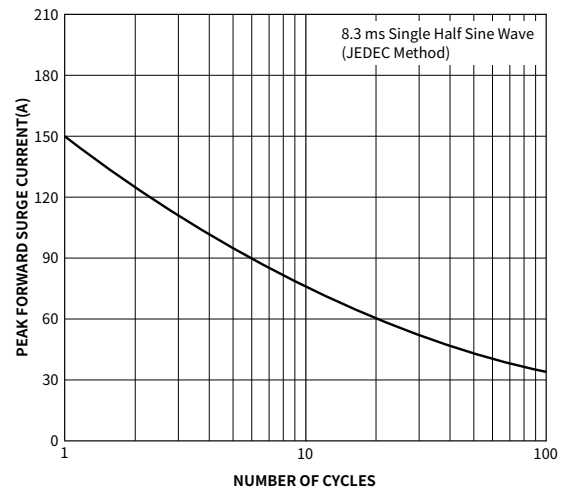


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

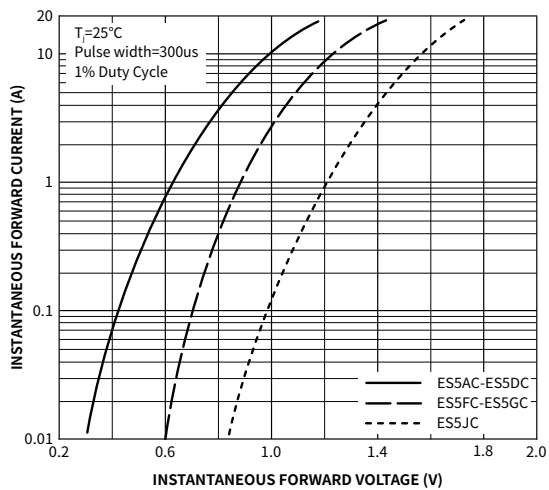


Fig.3 Typical Forward Voltage

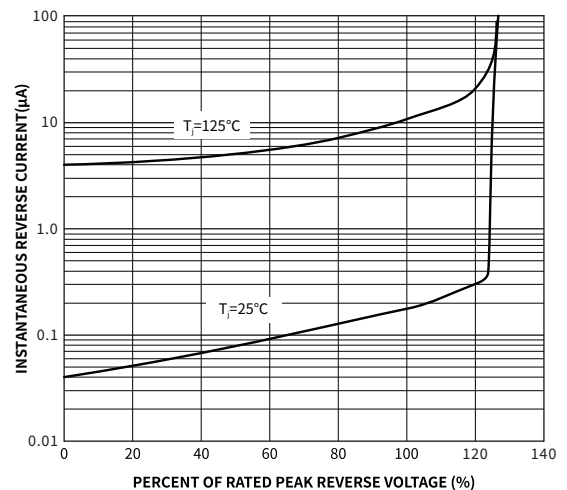


Fig.4 Typical Reverse Characteristics

Ordering Information

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