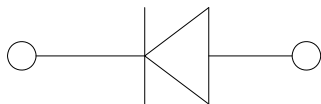
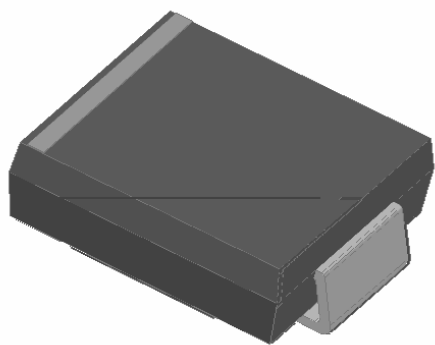


RoHS
COMPLIANT

Meets MSL level 1 , per J-STD-020 , L of 260 °C

Part no . with suffix 010 means AEC-Q101 c



Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, automotive and polarity protection applications.

Mechanical Data

- **Package:** DO-214AB (SMC)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes the cathode end

Maximum Ratings (Ta=25 Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS820Q
Device marking code			SS820
Repetitive peak reverse voltage	V _{RRM}	V	200
Maximum RMS voltage	V _{RMS}	V	140
Maximum DC blocking voltage	V _{DC}	V	200
Maximum average forward rectified current at T _L (Fig.1)	I _O	A	8.0
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, T _J =25	I _{FSM}	A	150
Voltage rate of change (rated V _R)	dV/dt	V/μs	10000
Storage temperature	T _{stg}		-55 ~+175
Junction temperature	T _J		-55 ~+175

Electrical Characteristics (Ta=25 Unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS		TYP	MAX	UNIT
Instantaneous forward voltage	V _F	I _F =8A	T _J =25	0.8	0.9	V
			T _J =125	-	0.8	
Reverse current	I _R	Rated V _R	T _J =25	-	10	μA
			T _J =125	-	200	
Typical junction capacitance	C _J	V _R =4V,f=1MHz		165	-	pF



SS820Q

■ Thermal Characteristics (Ta=25 Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	SS820Q
Thermal Resistance	Between junction and ambient	$R_{\theta J-A}$	/W	45 ⁽¹⁾
	Between junction and lead	$R_{\theta J-L}$		12 ⁽¹⁾

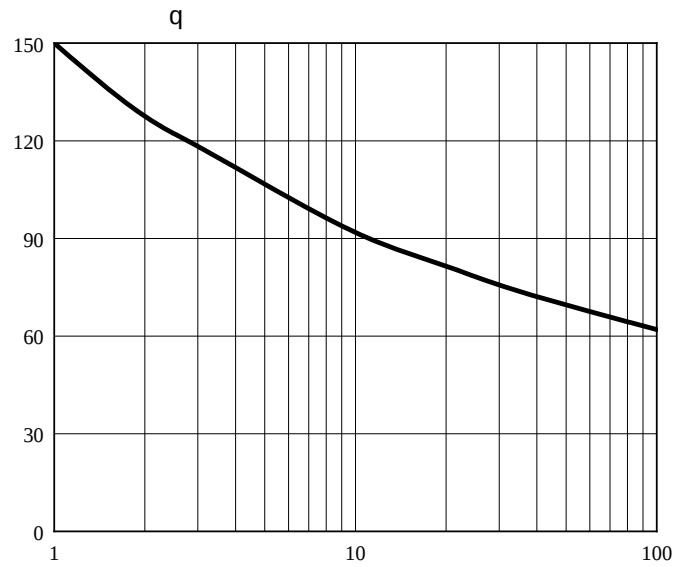
Note (1)

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas

■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS820Q	F1	Approximate 0.254	3000	42000	13" reel

■ Characteristics (Typical)





SS820Q

■ Outline Dimensions

DO-214AB (SMC)		
Dim	Min	Max
A	6.60	7.11
B	2.85	3.27
C	5.59	6.22
D	7.75	8.13
E	1.99	2.61
F	0.15	0.31
G	0.76	1.52
H	0.05	0.20

Ω Suggested pad layout

DO-214AB (SMC)	
Dim	Min
P1	9.9
P2	3.84
Q1	3.03
Q2	3.82



Dimensions in millimeters



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with automotive electronics, are not designed for use in medical, lifesaving, lifesustaining, or military, Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.