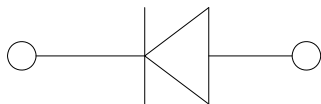
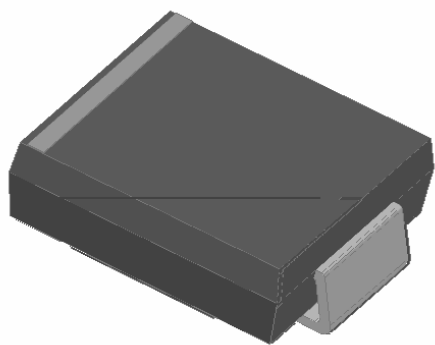


RoHS
COMPLIANT

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

X 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⁾

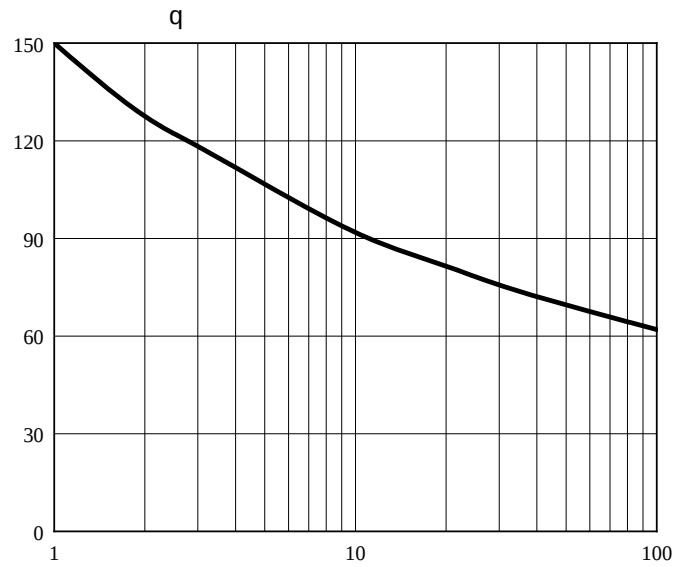
Note (1)

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

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