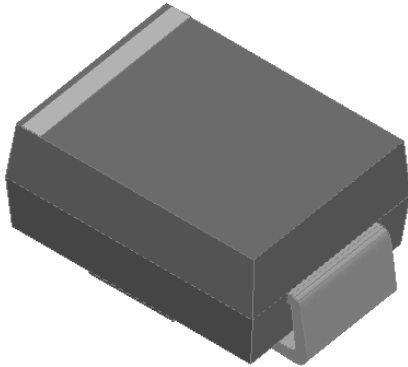


Surface Mount Schottky Rectifier

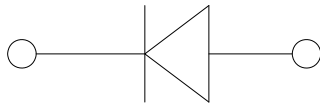


Features

- Guard ring for overvoltage protection
- Low power losses
- Extremely fast switching
- High forward surge capability
- High frequency operation
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Part no. with suffix "Q" means AEC-Q101 qualified

Typical Applications

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



Mechanical Data

- **Package:** DO-214AA (SMB)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■Maximum Ratings (T_a=25 Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS515BQ	SS520BQ
Device marking code			SS515B	SS520B
Repetitive peak reverse voltage	V _{RRM}	V	150	200
Maximum RMS voltage	V _{RMS}	V	105	140
Maximum DC blocking voltage	V _{DC}	V	150	200
Maximum average forward rectified current at T _L (Fig.1)	I _O	A	5.0	
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, T _J =25	I _{FSM}	A	120	
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 T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	TEST CONDITIONS		TYP	MAX	UNIT
Instantaneous forward voltage	V _F	I _F =5A	T _J =25	0.82	0.9	V
			T _J =125	0.7	0.8	
Reverse current	I _R	Rated V _R	T _J =25	-	1	μA
			T _J =125	-	150	
Typical junction capacitance	C _J	V _R =4V,f=1MHz		100	-	pF



SS515BQ THRU SS520BQ

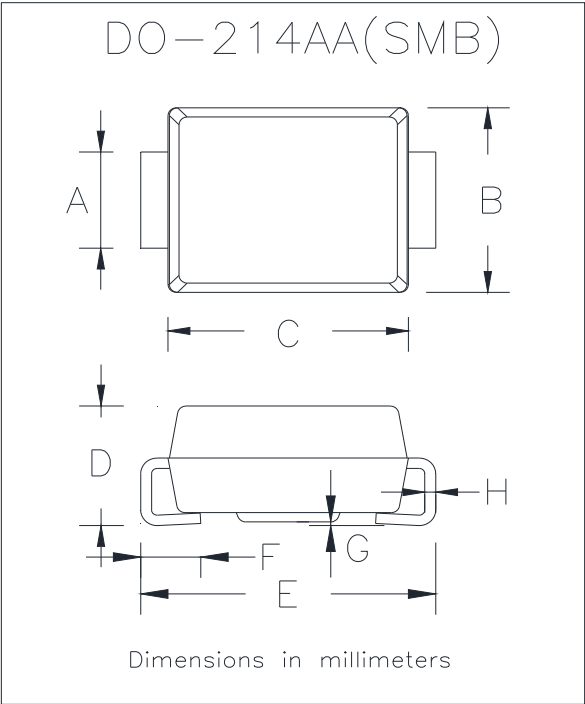
■ Thermal Characteristics $T_a=25$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	SS515BQ	SS520BQ
Thermal resistance	$R_{\theta JA}(1)$	/W	63 ¹⁾	
	$R_{\theta JL}(1)$		22 ¹⁾	



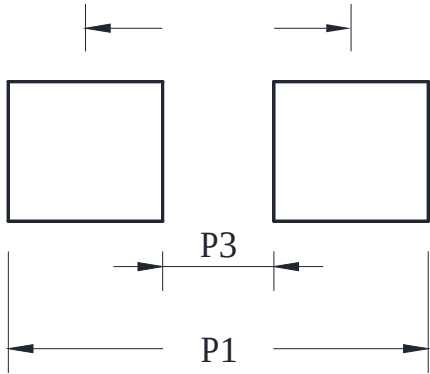
SS515BQ THRU SS520BQ

■ Outline Dimensions



DO-214AA(SMB)		
Dim	Min	Max
A	1.85	2.15
B	3.30	3.94
C	4.05	4.75
D	1.99	2.61
E	5.21	5.59
F	0.90	1.41
G	0.05	0.20
H	0.15	0.31

■ Suggested pad layout



DO-214AA(SMB)	
Dim	Millimeters
P1	6.8
P2	4.3
P3	1.8
Q1	2.5
Q2	2.3



SS515BQ THRU SS520BQ

Disclaimer

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