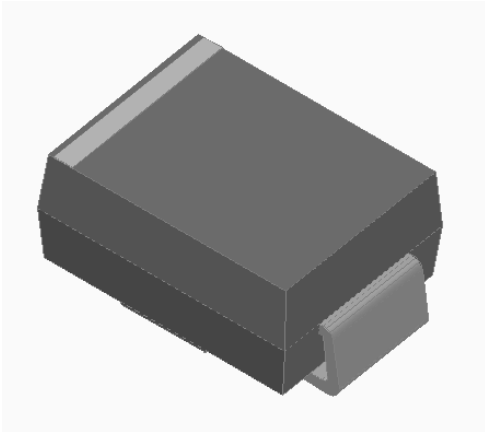


## Surface Mount Schottky Rectifier

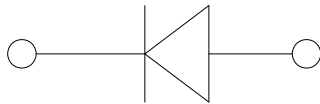


### Features

- 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	SS56BQ
Device marking code			SS56B
Repetitive peak reverse voltage	$V_{RRM}$	V	60
Maximum RMS voltage	$V_{RMS}$	V	42
Maximum DC blocking voltage	$V_{DC}$	V	60
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/ $\mu$ s	10000
Storage temperature	$T_{stg}$		-55 ~+150
Junction temperature	$T_J$		-55 ~+150

### Electrical Characteristics $T_a=25$ Unless otherwise specified

PARAMETER	SYMBOL	TEST CONDITIONS	TYP	MAX	UNIT	
Instantaneous forward voltage	$V_F$	$I_F=5A$	$T_J=25$	0.6	0.7	V
			$T_J=125$	0.54	0.63	
Reverse current	$I_R$	Rated $V_R$	$T_J=25$	8	100	$\mu$ A
			$T_J=125$	-	20	mA
Typical junction capacitance	$C_J$	$V_R=4V, f=1MHz$	215	-	pF	



## SS56BQ

### Thermal Characteristics $T_a=25$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	SS56BQ
Thermal resistance	$R_{JA(1)}$	/W	



Outline Dimensions

DO-214A



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



**Disclaimer**

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