Surface Mount Schottky Barrier Rectifiers

1 General Description

1.1 Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Built-in strain relief
- For surface mounted applications
- Low profile package
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- High temperature soldering guaranteed:260 C/10 seconds at terminals Component in accordance to RoHS 2002 95 EC and / / WEEE 2002 96 EC

REVERSE VOLTAGE

20-100V

FORWARD CURRENT

3Ampere

1.2 Typical Applications

- For use in low voltage ,high frequency inverters, free wheeling,and polarity protection applications



1.3 Mechanical Data

- Case: JEDEC SMB(DO-214AA) molded plastic body
- Terminals: solder plated ,solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

2 Maximum Ratings(TA=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	SS32B	SS33B	SS34B	SS35B	SS36B	SS38B	SS310B	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	3.0							A
Non-Repetitive Peak forward surge current 8.3 ms single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80.0							A
Operating Temperature Range	T_J	-55 to +125		-55 to +150					℃
Storage Temperature Range	T_{STG}	-55 to +150							℃
Thermal Resistance	$R_{\theta JA}$	55.0							°C/W
	$R_{\theta JL}$	17.0							

Notes: 1.Single phase, half wave, 60Hz resistive or inductive load,for capacitive load, derate by 20%.
2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC;
3.P.C.B. mounted with 0.55" X 0.55" (14.0 X 14.0 mm) copper pad areas.

3 Electrical Characteristics(TA=25℃ Unless otherwise specified)

PARAMETER		SYMBOL	SS32B	SS33B	SS34B	SS35B	SS36B	SS38B	SS310B	UNIT
Maximum instantaneous Forward Voltage drop per diode at 3.0A		V_F	0.55			0.75		0.85		V
Reverse Current at Rated DC Blocking Voltage	Ta =25℃	I_R	0.2							mA
	Ta=100℃		20.0			10.0				

4 Characteristics Curves(TA=25℃ Unless otherwise specified)

FIG.1-FORWARD CURRENT DERATING CURVE

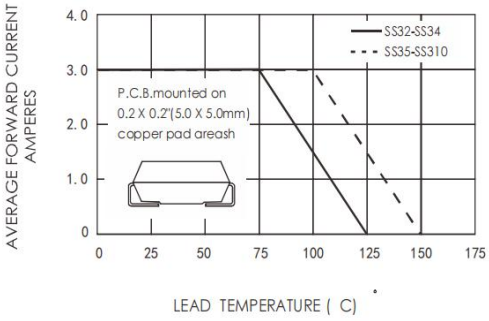


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

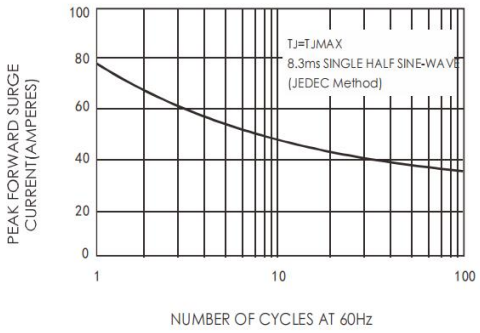


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

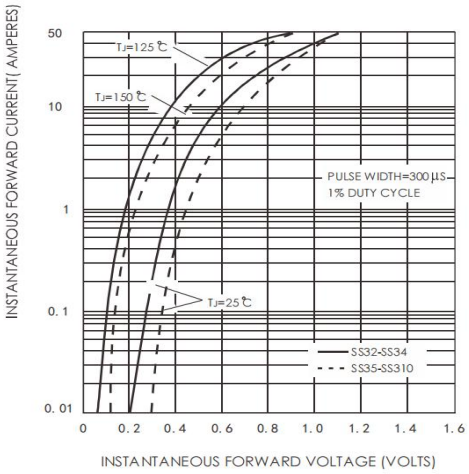


FIG.4-TYPICAL REVERSE CHARACTERISTICS

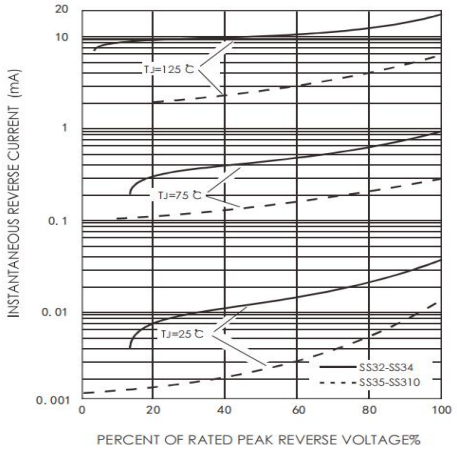


FIG.5-TYPICAL JUNCTION CAPACITANCE

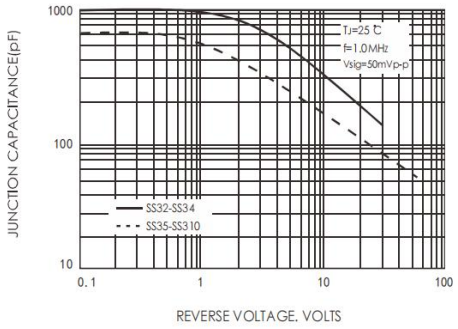
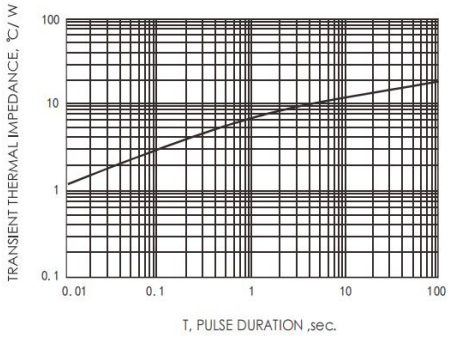
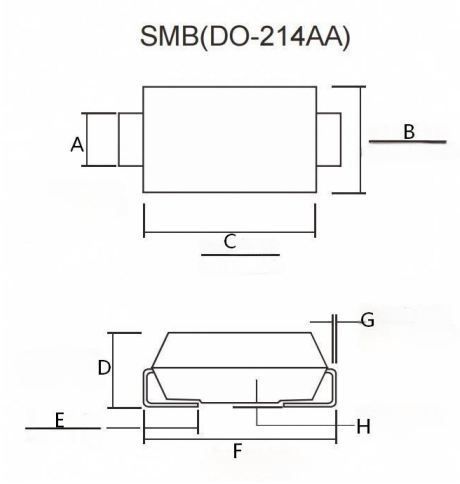


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



5 Package Outline Dimensions



Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	1.91	2.20	0.075	0.086
B	3.30	3.94	0.130	0.155
C	4.06	4.76	0.160	0.187
D	2.13	2.44	0.083	0.096
E	0.76	1.52	0.030	0.060
F	5.08	5.59	0.200	0.220
G	0.152	0.305	0.006	0.012
H	-	0.203	-	0.008

6 Ordering Information

PACKAGE	UNIT WEIGHT (g)	PACKAGING	REEL (pcs)
SMB	Consult	Reel	3000

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