SCHOTTKY BARRIER RECTIFIERS

PRODUCT SUMMARY

3.0 AMPS Surface Mount

FEATURES

For surface mounted application
Easy pick and place
Metal to silicon rectifier, majority carrier conduction
Low power loss, high efficiency
High current capability, low VF
High surge current capability
Plastic material used carriers Underwriters
Laboratory Classification 94V-0
Epitaxial construction
High temperature soldering:
260°C / 10 seconds at terminals

MECANICAL DATA

Case: JEDEC DO-214AB Molded plastic
Terminals: Pure tin plated, lead free.
Polarity: Indicated by cathode band
Packaging: 16mm tape per EIA STD RS-481
Weight: 0.21gram

SMC/DO-214AB

.126(3.20)
.114(2.90)
.245(6.22)
.220(5.59)
.280(7.11)
.260(6.60)
.012(.31)
.006(.15)
.103(2.62)
.079(2.00)
.008(.20)
.004(.10)
.063(1.6)
.039(1.0)
.320(8.13)
.305(7.75)
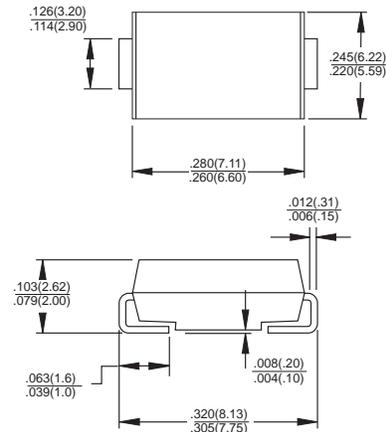
Dimensions in inches and (millimeters)

Pb-free; RoHS-compliant

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number	Symbol	SS 32	SS 33	SS 34	SS 35	SS 36	SS 39	SS 310	SS 315	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	90	100	150	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	63	70	105	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	90	100	150	V
Maximum Average Forward Rectified Current at T_L(See Fig. 1)	$I_{(AV)}$	3.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	100			70					A
Maximum Instantaneous Forward Voltage (Note 1) IF= 3.0A @ 25°C @ 100°C	V_F	0.5 0.4			0.75 0.65		0.85 0.70		0.95 0.80	V
Maximum DC Reverse Current @ T_A =25°C at	I_R	0.5					0.1			mA
Rated DC Blocking Voltage @ T_A=125°C		10			5		0.5			mA
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	17 55								^{o}C/W
Operating Temperature Range	T_J	-55 to +125			-55 to +150					^{o}C
Storage Temperature Range	T_{STG}	-55 to +150								^{o}C

Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle

RATINGS AND CHARACTERISTIC CURVES (SS32 THRU SS315)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

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

FIG.3- TYPICAL FORWARD CHARACTERISTICS

FIG.4- TYPICAL REVERSE CHARACTERISTICS

FIG.5- TYPICAL JUNCTION CAPACITANCE

FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS
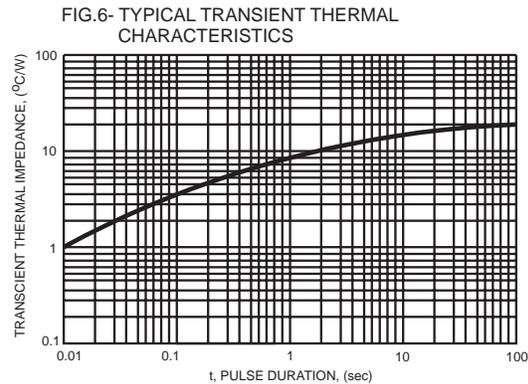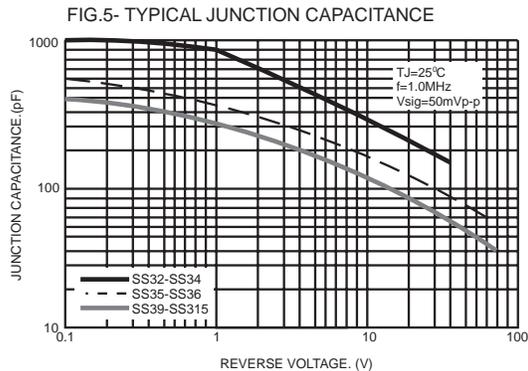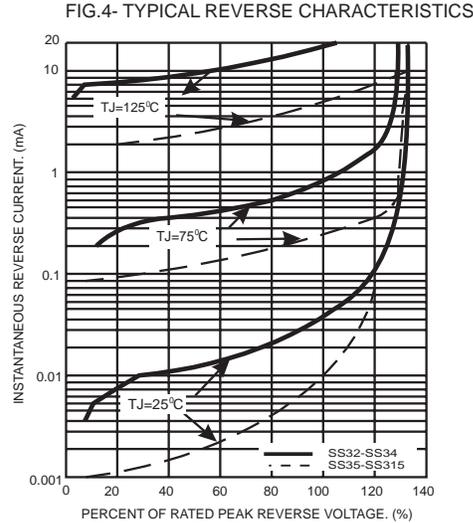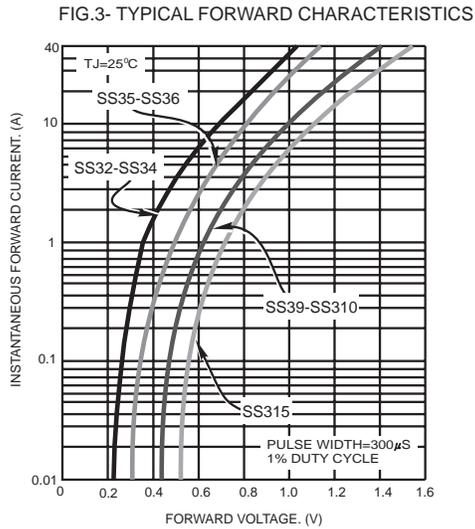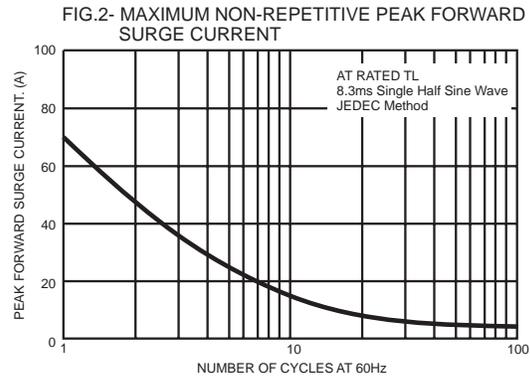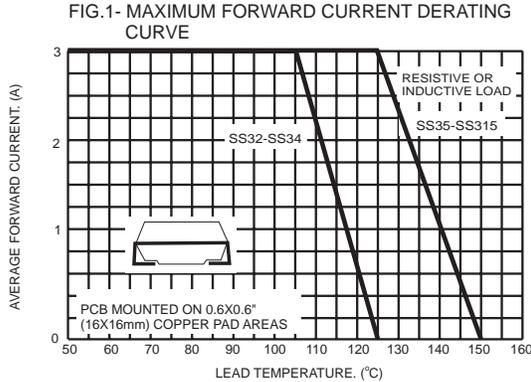
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