SS52 THRU SS5200
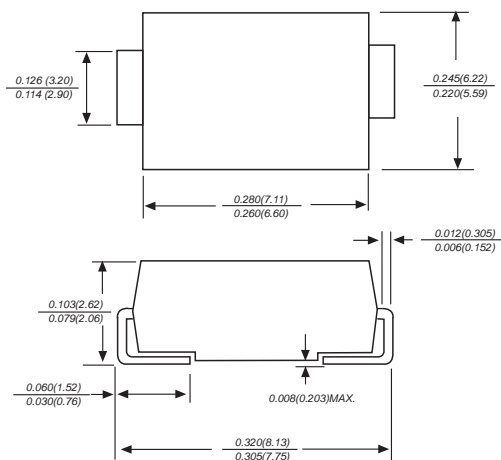
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts   Forward Current - 5.0 Amperes

DO-214AB/SMC

0.126 (3.20) / 0.114 (2.90)

0.245(6.22) / 0.220(5.59)

0.280(7.11) / 0.260(6.60)

0.012(0.305) / 0.006(0.152)

0.103(2.62) / 0.079(2.06)

0.060(1.52) / 0.030(0.76)

0.008(0.203)MAX.

0.320(8.13) / 0.305(7.75)

Dimensions in inches and (millimeters)

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low reverse leakage
- Built-in strain relief,ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250℃/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AB molded plastic body
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight:0.007 ounce, 0.25grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

MDD Catalog Number	SYMBOLS	SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS5150	SS5200	UNITS
Marking code		MDD SS52	MDD SS53	MDD SS54	MDD SS55	MDD SS56	MDD SS58	MDD SS510	MDD SS5150	MDD SS5200	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	VOLTS
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	150	VOLTS
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	VOLTS
Maximum average forward rectified current at T_L(see fig.1)	$I_{(AV)}$	5.0									Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150.0									Amps
Maximum instantaneous forward voltage at 5.0A	V_F	0.55		0.70		0.85				0.95	Volts
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=100℃	I_R	0.5							0.2		mA
		20						10	2.0		
Typical junction capacitance (NOTE 1)	C_J	200									pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	50.0									℃/W
Operating junction temperature range	T_J,	-50 to +125					-50 to +150				℃
Storage temperature range	T_{STG}	-50 to +150									℃

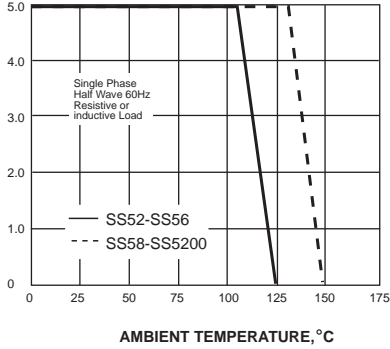**Note:** 1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
    2.P.C.B. mounted with 0.2x0.2 ”(5.0x5.0mm) copper pad areas

www.microdiode.com

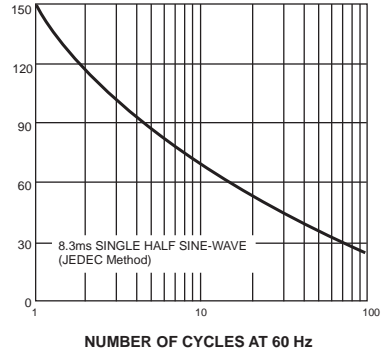# RATINGS AND CHARACTERISTIC CURVES SS52 THRU SS5200

FIG. 1- FORWARD CURRENT DERATING CURVE

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

Single Phase
Half Wave 60Hz
Resistive or
inductive Load

SS52-SS56
SS58-SS5200

AMBIENT TEMPERATURE,°C

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

PEAK FORWARD SURGE CURRENT, AMPERES

8.3ms SINGLE HALF SINE-WAVE
(JEDEC Method)

NUMBER OF CYCLES AT 60 Hz

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

INSTANTANEOUS FORWARD CURRENT,AMPERES

T_J=25℃

SS52-SS54
SS55-SS56
SS58-SS5150
SS5200

INSTANTANEOUS FORWARD VOLEAGE, VOLTS

FIG. 4-TYPICAL REVERSE CHARACTERISTICS
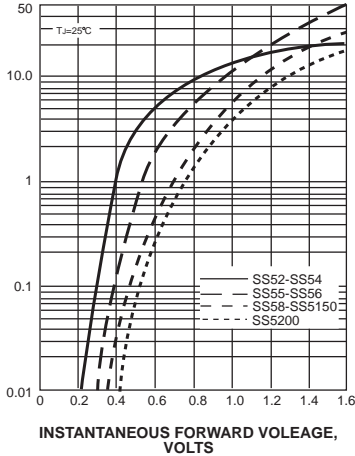
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

TJ=100℃

TJ=75℃

TJ=25℃

PERCENT OF PEAK REVERSE VOLTAGE,%

FIG. 5-TYPICAL JUNCTION CAPACITANCE
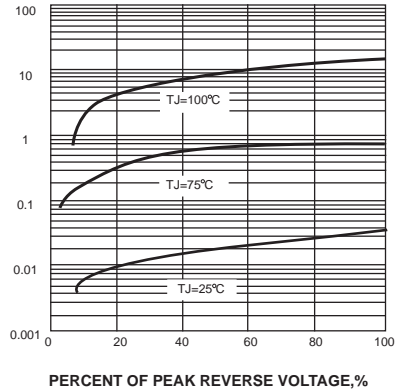
JUNCTION CAPACITANCE, pF

T_J=25℃

REVERSE VOLTAGE,VOLTS
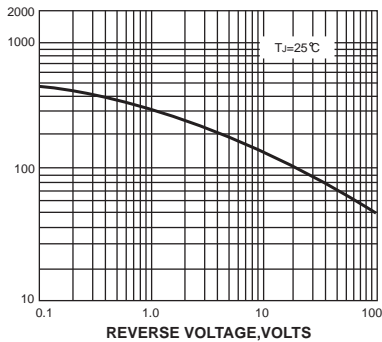
FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

TRANSIENT THERMAL IMPEDANCE, ℃/W

t,PULSE DURATION,sec.
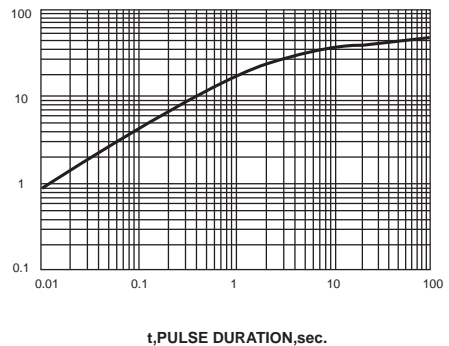
The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!

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