

SM120A THRU SM1100A

GW

1.0 AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS



FEATURES

- * Ideal for surface mount applications
- * Easy pick and place
- * Built-in strain relief
- * Low forward voltage drop

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Metallurgically bonded construction
- * Polarity: Color band denotes cathode end
- * Mounting position: Any

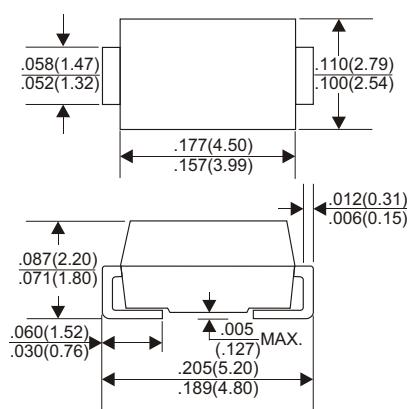
VOLTAGE RANGE

20 to 100 Volts

CURRENT

1.0 Ampere

DO-214AC(SMA)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	SM120A	SM130A	SM140A	SM150A	SM160A	SM180A	SM1100A	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	V
Maximum RMS Voltage	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current at T _L =100°C	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	30							A
Maximum Instantaneous Forward Voltage at 1.0A	0.55		0.70		0.85			V
Maximum DC Reverse Current Ta=25°C	0.5							mA
at Rated DC Blocking Voltage Ta=100°C	10							mA
Typical Junction Capacitance (Note1)	110							pF
Typical Thermal Resistance RθJL (Note 2)	20							°C/W
Operating Temperature Range Tj	-65 — +150							°C
Storage Temperature Range Tstg	-65 — +150							°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Lead.

RATING AND CHARACTERISTIC CURVES (SM120A THRU SM1100A)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

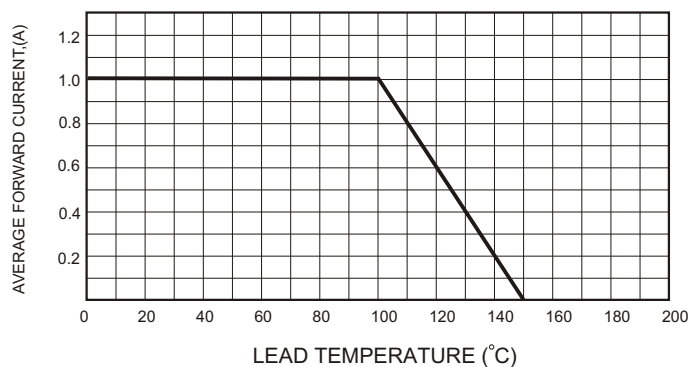


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

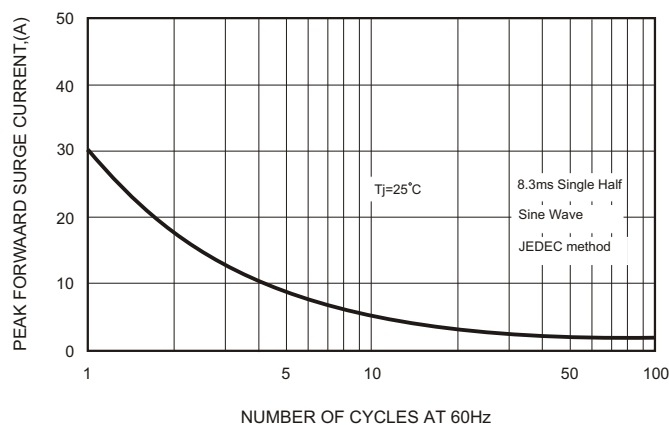


FIG.4-TYPICAL JUNCTION CAPACITANCE

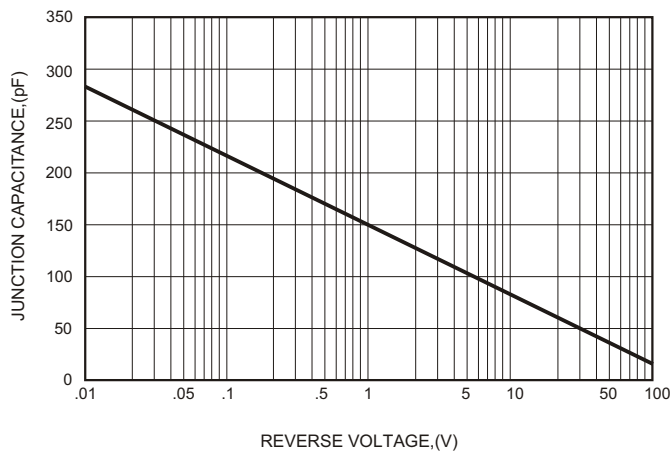


FIG.2-TYPICAL FORWARD CHARACTERISTICS

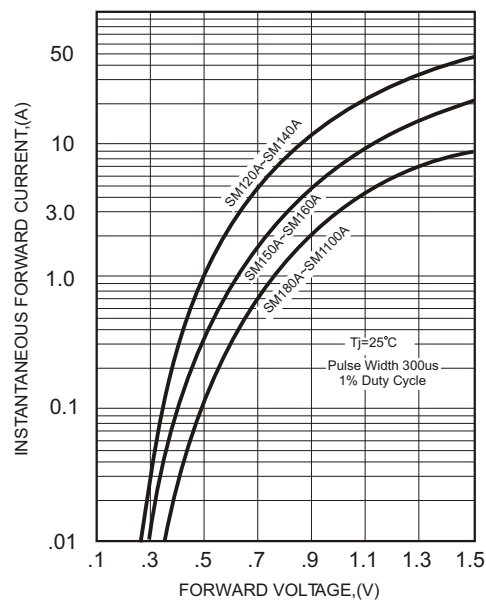
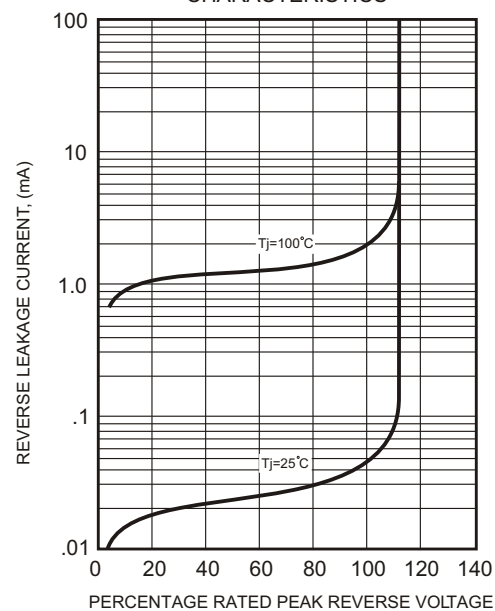


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



SM320A THRU SM3100A



3.0 AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS



FEATURES

- * Ideal for surface mount applications
- * Easy pick and place
- * Built-in strain relief
- * Low forward voltage drop

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Metallurgically bonded construction
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.063 grams

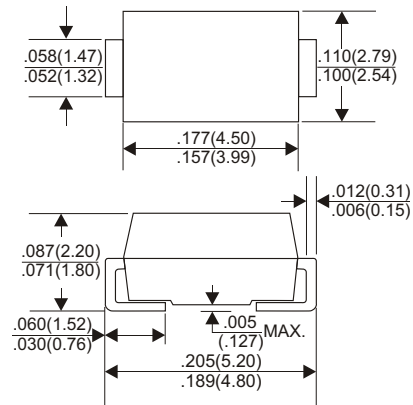
VOLTAGE RANGE

20 to 100 Volts

CURRENT

3.0 Amperes

DO-214AC(SMA)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	SM320A	SM330A	SM340A	SM350A	SM360A	SM380A	SM3100A	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	V
Maximum RMS Voltage	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current at T _L =100°C	3.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	80							A
Maximum Instantaneous Forward Voltage at 3.0A	0.55		0.75		0.85			V
Maximum DC Reverse Current Ta=25°C	0.5							mA
at Rated DC Blocking Voltage Ta=100°C	20							mA
Typical Junction Capacitance (Note1)	300							pF
Typical Thermal Resistance RθJL (Note 2)	10							°C/W
Operating Temperature Range Tj	-65 — +150							°C
Storage Temperature Range Tstg	-65 — +150							°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Lead.

RATING AND CHARACTERISTIC CURVES (SM320A THRU SM3100A)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

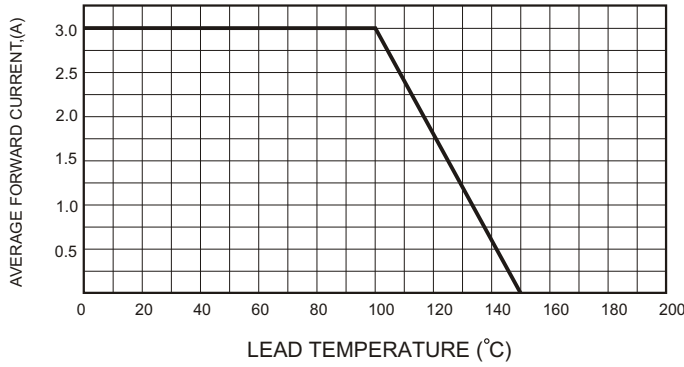


FIG.2-TYPICAL FORWARD CHARACTERISTICS

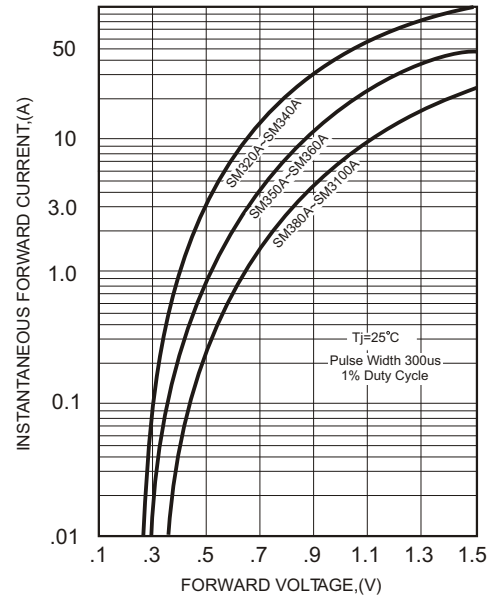


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

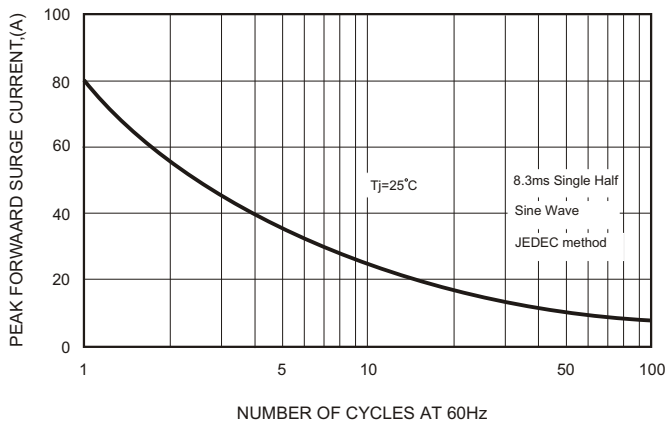


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

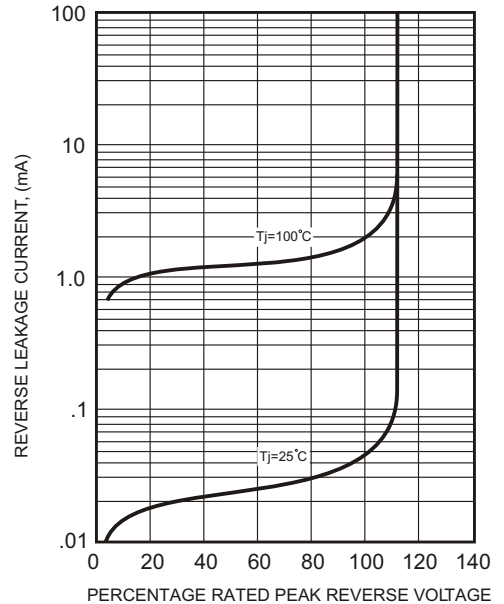
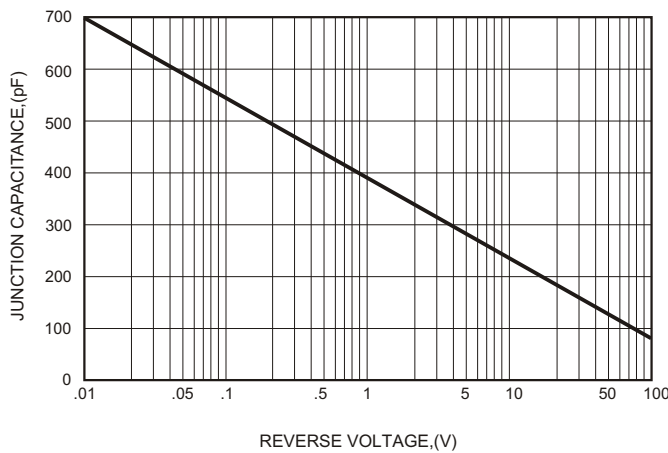


FIG.4-TYPICAL JUNCTION CAPACITANCE



SM520A THRU SM5100A



5.0 AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS



FEATURES

- * Ideal for surface mount applications
- * Easy pick and place
- * Built-in strain relief
- * Low forward voltage drop

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Metallurgically bonded construction
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.055 grams

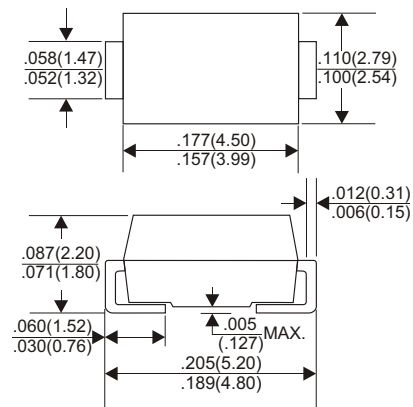
VOLTAGE RANGE

20 to 100 Volts

CURRENT

5.0 Amperes

DO-214AC(SMA)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	SM520A	SM530A	SM540A	SM550A	SM560A	SM580A	SM5100A	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	V
Maximum RMS Voltage	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current at T _L =80°C	5.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	100							A
Maximum Instantaneous Forward Voltage at 5.0A	0.55		0.75		0.85			V
Maximum DC Reverse Current Ta=25°C	0.5							mA
at Rated DC Blocking Voltage Ta=100°C	20							mA
Typical Junction Capacitance (Note1)	300							pF
Typical Thermal Resistance RθJL (Note 2)	10							°C/W
Operating Temperature Range Tj	-65 — +150							°C
Storage Temperature Range Tstg	-65 — +150							°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Lead.

RATING AND CHARACTERISTIC CURVES (SM520A THRU SM5100A)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

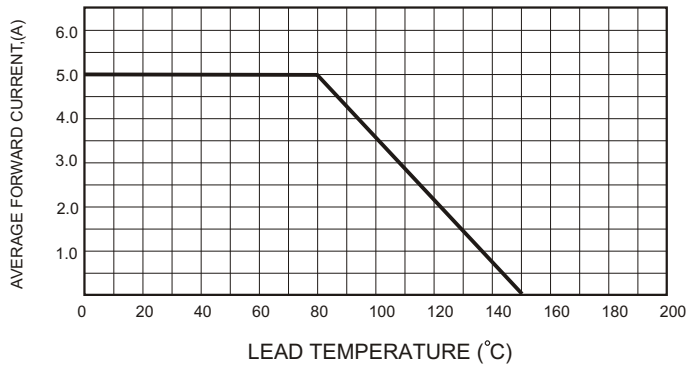


FIG.2-TYPICAL FORWARD CHARACTERISTICS

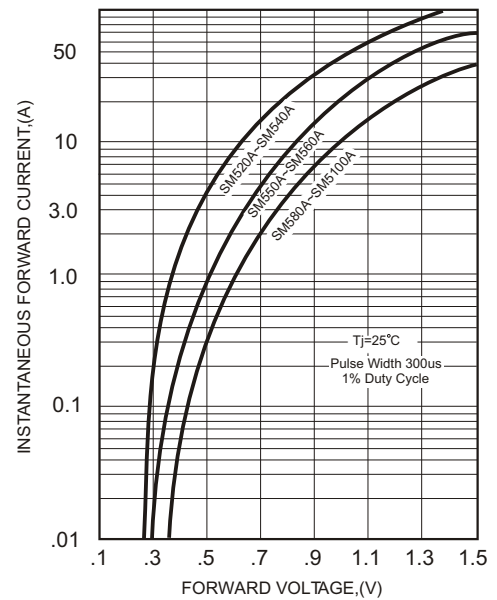


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

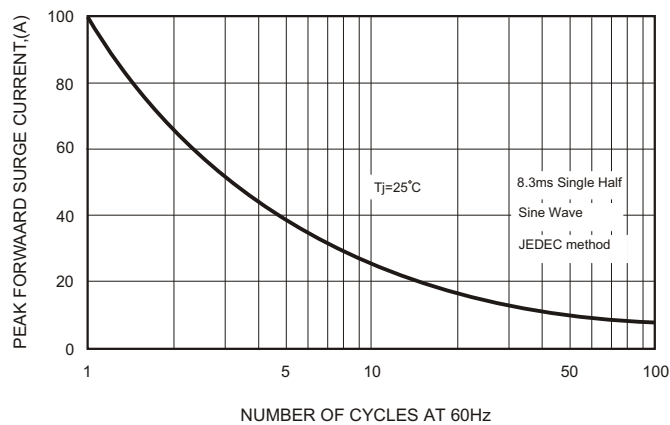


FIG.4-TYPICAL JUNCTION CAPACITANCE

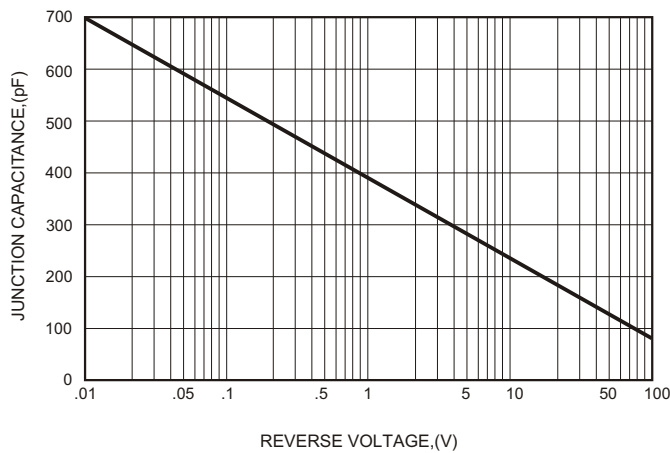
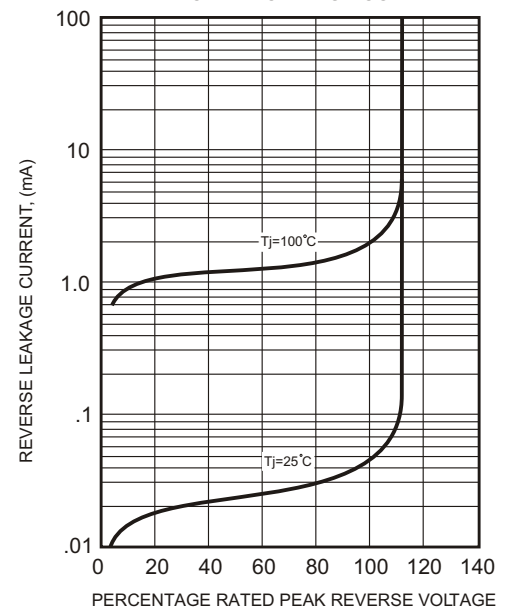


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



SM5817A THRU SM5819A

GW

1.0 AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS



FEATURES

- * Ideal for surface mount applications
- * Easy pick and place
- * Built-in strain relief
- * Low forward voltage drop

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Metallurgically bonded construction
- * Polarity: Color band denotes cathode end
- * Mounting position: Any

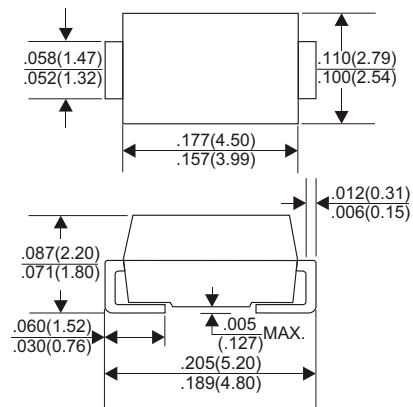
VOLTAGE RANGE

20 to 40 Volts

CURRENT

1.0 Ampere

DO-214AC(SMA)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	SM5817A	SM5818A	SM5819A	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	V
Maximum RMS Voltage	14	21	28	V
Maximum DC Blocking Voltage	20	30	40	V
Maximum Average Forward Rectified Current at Ta=90°C	1.0			A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	25			A
Maximum Instantaneous Forward Voltage at 1.0A	0.45	0.55	0.60	V
Maximum DC Reverse Current Ta=25°C	0.5			mA
at Rated DC Blocking Voltage Ta=100°C	10			mA
Typical Junction Capacitance (Note1)	110			pF
Typical Thermal Resistance RθJA (Note 2)	80			°C/W
Operating Temperature Range Tj	-65 — +150			°C
Storage Temperature Range Tstg	-65 — +150			°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient.

RATING AND CHARACTERISTIC CURVES (SM5817A THRU SM5819A)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

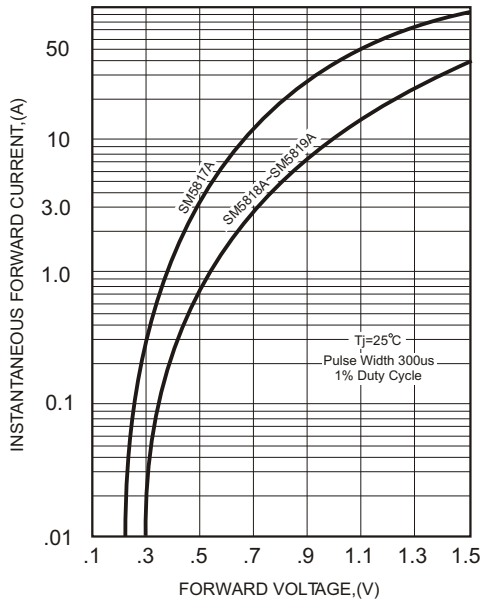


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

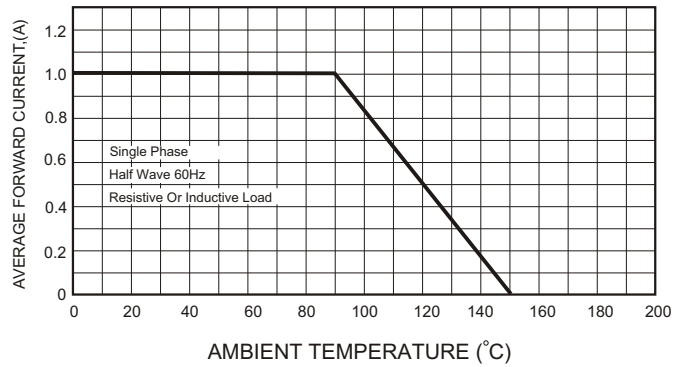


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

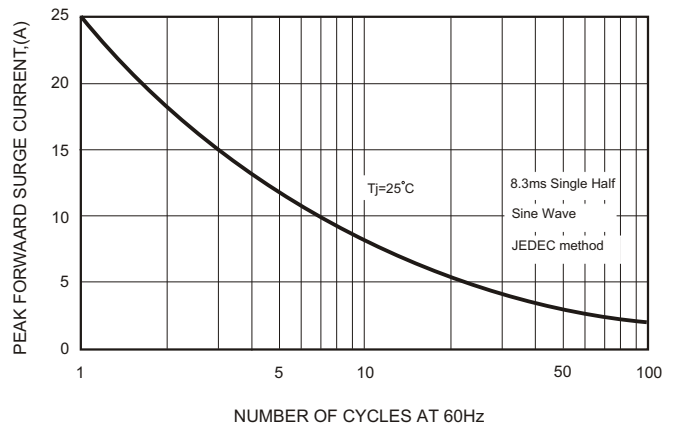


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

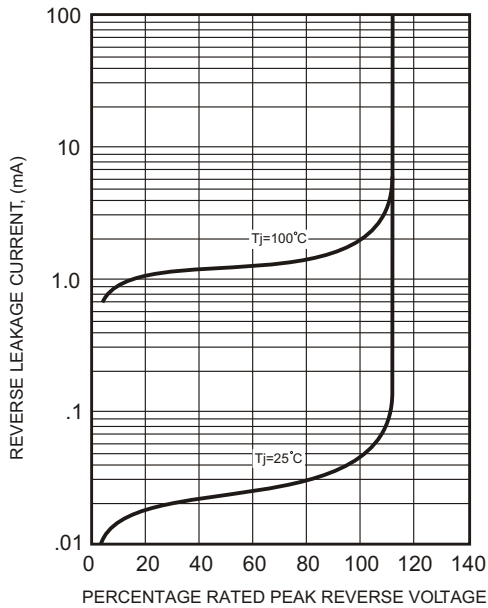


FIG.5-TYPICAL JUNCTION CAPACITANCE

