KBJ401 THRU KBJ407

SINGLE PHASE 4.0 AMP BRIDGE RECTIFIERS

GW

VOLTAGE RANGE

50 to 1000 Volts

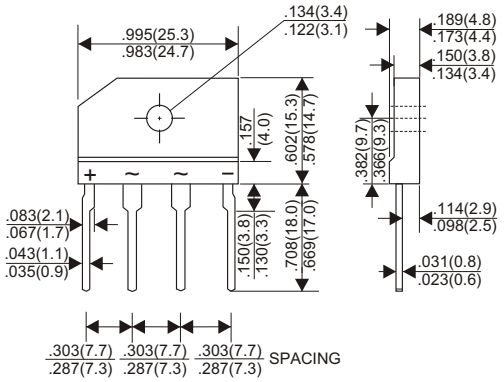
CURRENT

4.0 Amperes

FEATURES

* Ideal for printed circuit board
* Low forward voltage
* Low leakage current
* Mounting position: Any

KBJ



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	KBJ401	KBJ402	KBJ403	KBJ404	KBJ405	KBJ406	KBJ407	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward (with heatsink Note 1)				4.0				
Rectified Current at Tc=100°C (Without heatsink)				2.4				A
Peak Forward Surge Current, 8.3 ms single half sine-wave								
superimposed on rated load (JEDEC method)				120				A
Maximum Forward Voltage Drop per Bridge Element at 4.0A D.C.				1.1				V
Maximum DC Reverse Current Ta=25°C				5.0				μA
at Rated DC Blocking Voltage Ta=100°C				500				μA
Typical Thermal Resistance $R\theta_{JC}$ (Note 2)				5.5				°C/W
Typical Junction Capacitance (Note 3)				45				PF
Operating Temperature Range, T_J				-55 — +150				°C
Storage Temperature Range, T_{STG}				-55 — +150				°C

NOTES

1. Device mounted on 50mm x 50mm x 1.6mm Cu Plate Heatsink.
2. Thermal Resistance from Junction to Case with device mounted on 50mm x 50mm x 1.6mm Cu Plate Heatsink.
3. Measured at 1MHz and applied Reverse Voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (KBJ401 THRU KBJ407)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

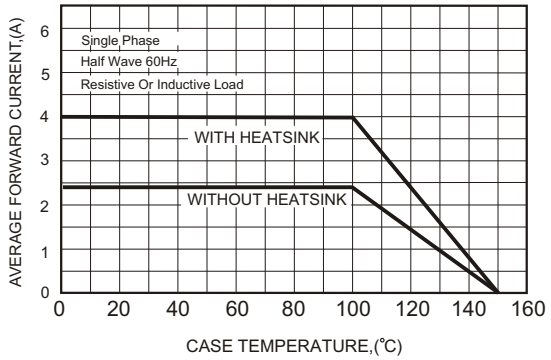


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

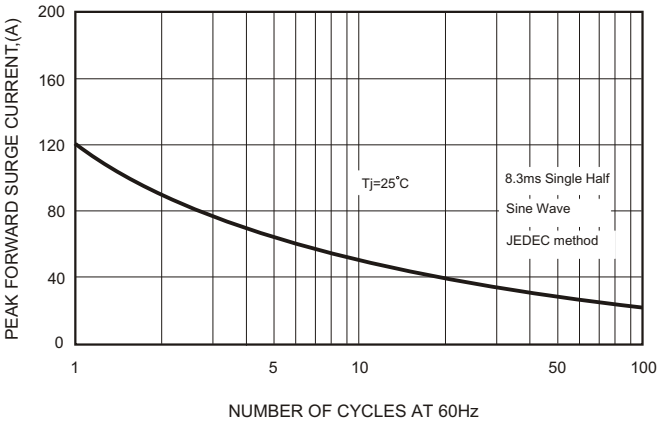


FIG.3-TYPICAL FORWARD CHARACTERISTICS

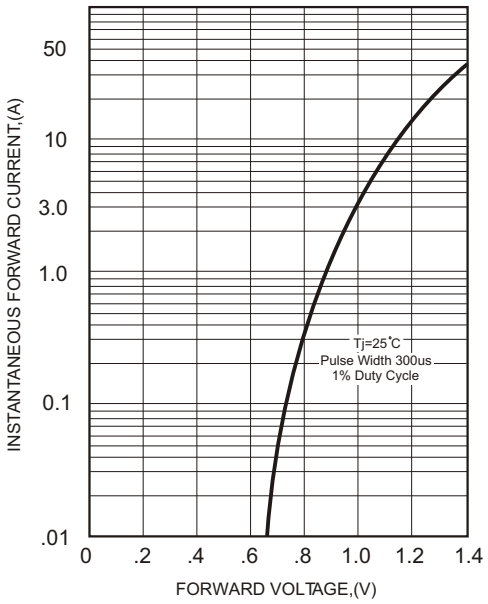
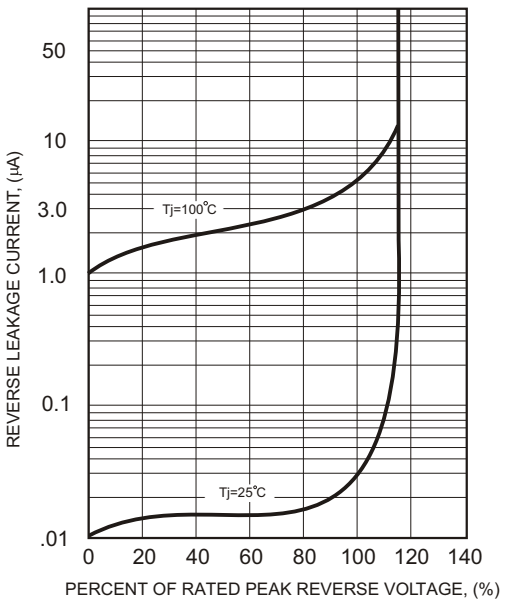


FIG.4-TYPICAL REVERSE CHARACTERISTICS



KBJ601 THRU KBJ607

SINGLE PHASE 6.0 AMP BRIDGE RECTIFIERS

VOLTAGE RANGE

50 to 1000 Volts

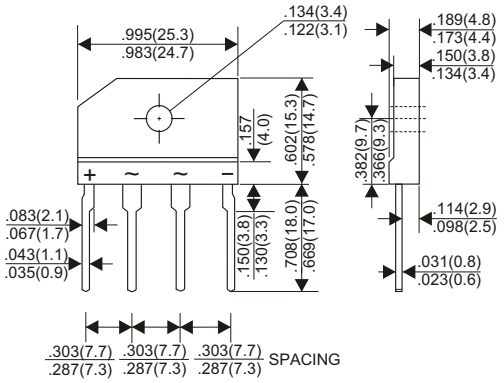
CURRENT

6.0 Amperes

FEATURES

* Ideal for printed circuit board
* Low forward voltage
* Low leakage current
* Mounting position: Any

KBJ



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	KBJ601	KBJ602	KBJ603	KBJ604	KBJ605	KBJ606	KBJ607	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward (with heatsink Note 1)				6.0				
Rectified Current at Tc=100°C (Without heatsink)				2.8				A
Peak Forward Surge Current, 8.3 ms single half sine-wave								
superimposed on rated load (JEDEC method)				150				A
Maximum Forward Voltage Drop per Bridge Element at 3.0A D.C.				1.1				V
Maximum DC Reverse Current Ta=25°C				5.0				μA
at Rated DC Blocking Voltage Ta=100°C				500				μA
Typical Thermal Resistance RθJC (Note 2)				3.4				°C/W
Typical Junction Capacitance (Note 3)				55				PF
Operating Temperature Range, TJ				-55 — +150				°C
Storage Temperature Range, TSTG				-55 — +150				°C

NOTES

1. Device mounted on 75mm x 75mm x 1.6mm Cu Plate Heatsink.
2. Thermal Resistance from Junction to Case with device mounted on 75mm x 75mm x 1.6mm Cu Plate Heatsink.
3. Measured at 1MHz and applied Reverse Voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (KBJ601 THRU KBJ607)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

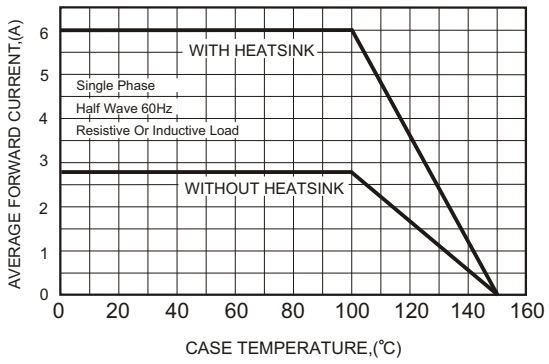


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

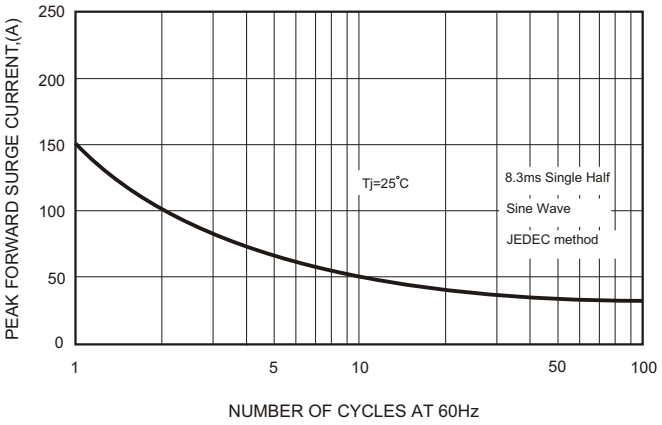


FIG.3-TYPICAL FORWARD CHARACTERISTICS

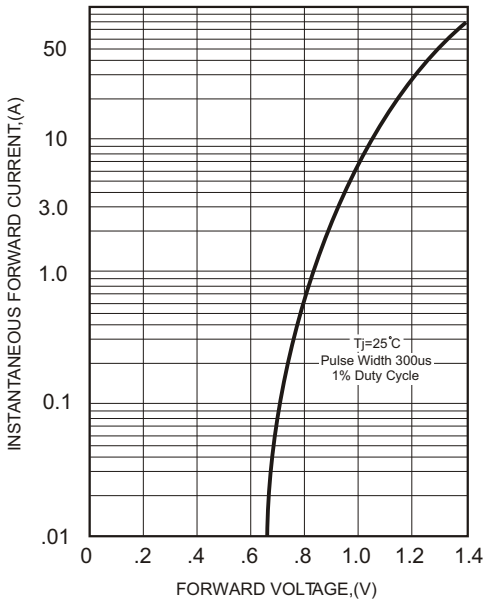
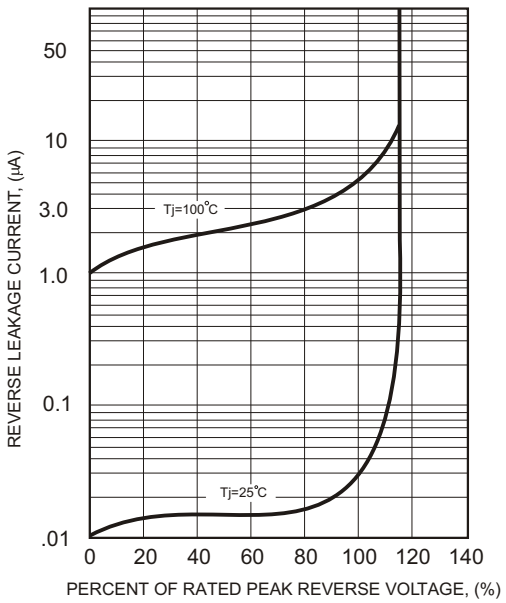


FIG.4-TYPICAL REVERSE CHARACTERISTICS



KBJ801 THRU KBJ807

SINGLE PHASE 8.0 AMP BRIDGE RECTIFIERS

GW

FEATURES

* Ideal for printed circuit board
* Low forward voltage
* Low leakage current
* Mounting position: Any

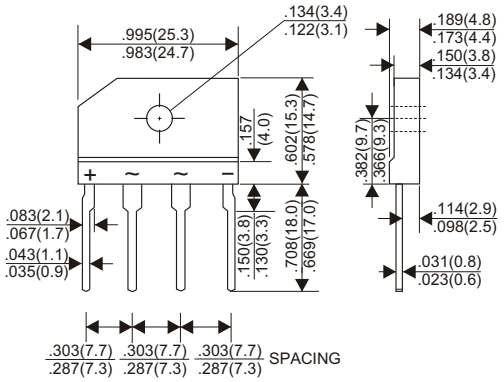
VOLTAGE RANGE

50 to 1000 Volts

CURRENT

8.0 Amperes

KBJ



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	KBJ801	KBJ802	KBJ803	KBJ804	KBJ805	KBJ806	KBJ807	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward (with heatsink Note 1)	8.0							A
Rectified Current at Tc=100°C (Without heatsink)	2.9							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	160							A
Maximum Forward Voltage Drop per Bridge Element at 4.0A D.C.	1.1							V
Maximum DC Reverse Current Ta=25°C	5.0							μA
at Rated DC Blocking Voltage Ta=100°C	500							μA
Typical Thermal Resistance $R\theta_{JC}$ (Note 2)	2.8							°C/W
Typical Junction Capacitance (Note 3)	55							PF
Operating Temperature Range, T_J	-55 — +150							°C
Storage Temperature Range, T_{STG}	-55 — +150							°C

NOTES

1. Device mounted on 100mm x 100mm x 1.6mm Cu Plate Heatsink.
2. Thermal Resistance from Junction to Case with device mounted on 100mm x 100mm x 1.6mm Cu Plate Heatsink.
3. Measured at 1MHz and applied Reverse Voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (KBJ801 THRU KBJ807)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

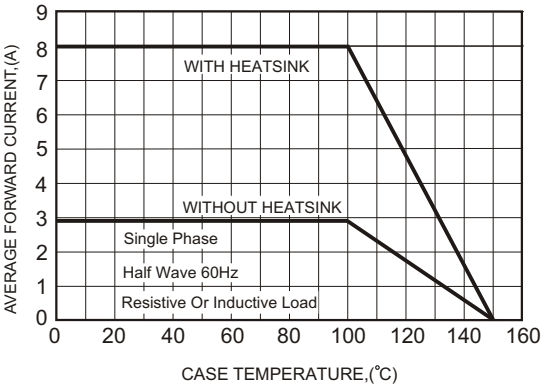


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

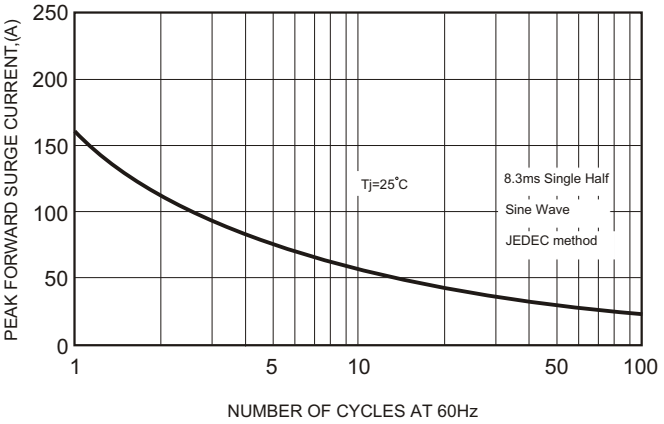


FIG.3-TYPICAL FORWARD CHARACTERISTICS

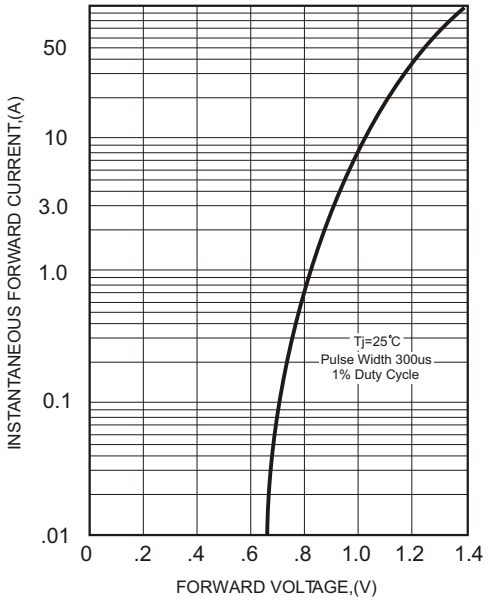
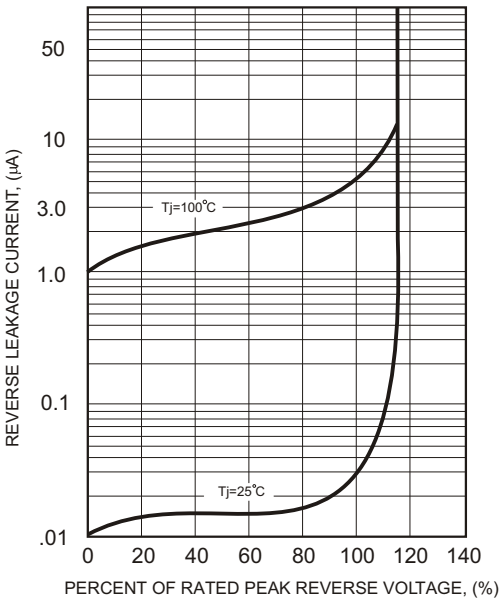


FIG.4-TYPICAL REVERSE CHARACTERISTICS



KBJ1001 THRU KBJ1007

SINGLE PHASE 10.0 AMP BRIDGE RECTIFIERS

GW

FEATURES

* Ideal for printed circuit board
* Low forward voltage
* Low leakage current
* Mounting position: Any

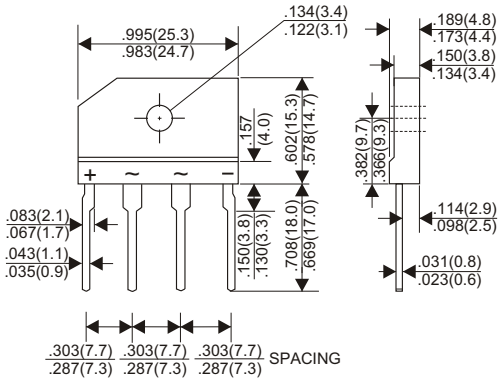
VOLTAGE RANGE

50 to 1000 Volts

CURRENT

10.0 Amperes

KBJ



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	KBJ1001	KBJ1002	KBJ1003	KBJ1004	KBJ1005	KBJ1006	KBJ1007	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward (with heatsink Note 1)	10.0							A
Rectified Current at Tc=110°C (Without heatsink)	3.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	170							A
Maximum Forward Voltage Drop per Bridge Element at 5.0A D.C.	1.1							V
Maximum DC Reverse Current Ta=25°C	5.0							μA
at Rated DC Blocking Voltage Ta=100°C	500							μA
Typical Thermal Resistance $R\theta_{JC}$ (Note 2)	1.9							°C/W
Typical Junction Capacitance (Note 3)	55							PF
Operating Temperature Range, T_J	-55 — +150							°C
Storage Temperature Range, T_{STG}	-55 — +150							°C

NOTES

1. Device mounted on 150mm x 150mm x 1.6mm Cu Plate Heatsink.
2. Thermal Resistance from Junction to Case with device mounted on 150mm x 150mm x 1.6mm Cu Plate Heatsink.
3. Measured at 1MHz and applied Reverse Voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (KBJ1001 THRU KBJ1007)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

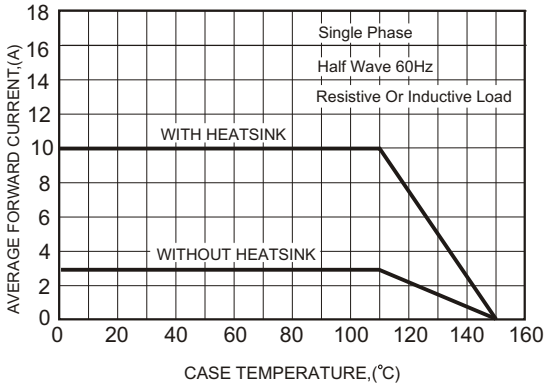


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

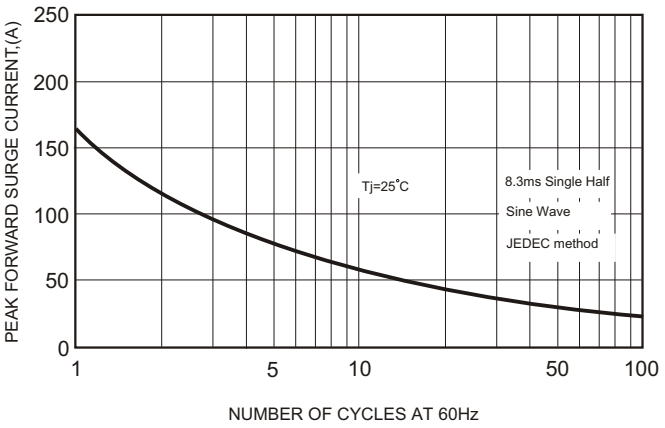


FIG.3-TYPICAL FORWARD CHARACTERISTICS

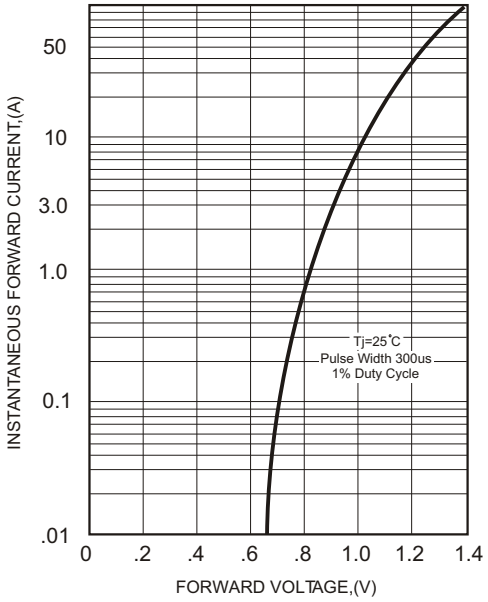


FIG.4-TYPICAL REVERSE CHARACTERISTICS