

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 40 Volts CURRENT 1.0 Ampere

FEATURES

- * Low power loss, high efficiency
- * Low leakage
- * Low forward voltage
- * High current capability
- * High speed switching
- * High surge capability
- * High reliability

MECHANICAL DATA

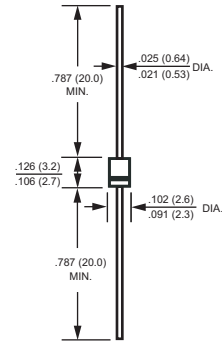
- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.12 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
resistive or inductive load.



R-1



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (@TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	1N17	1N18	1N19	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	Volts
Maximum RMS Voltage	V _{RMS}	14	21	28	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	40	Volts
Maximum Average Forward Rectified Current .375" (9.5mm) lead length at T _L =90°C	I _O	1.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	20			Amps
Typical Current Squared Time	i ² T	1.6			A ² S
Typical Thermal Resistance (Note 3)	R _{θJA}	60			°C/W
	R _{θJL}	20			
Typical Junction Capacitance (Note 1)	C _J	110			pF
Operating Temperature Range	T _J	150			°C
Storage Temperature Range	T _{STG}	-55 to + 150			°C

ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)

CHARACTERISTICS		SYMBOL	1N17	1N18	1N19	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC		V _F	.45	.55	.60	Volts
Maximum Instantaneous Forward Voltage at 3.1A DC		V _F	.75	0.875	0.90	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@T _A = 25°C	I _R	0.2			mAmps
	@T _A = 100°C		10			mAmps

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

3. Thermal Resistance : At 9.5mm lead lengths, PCB mounted.

2009-10
REV:A

RATING AND CHARACTERISTICS CURVES (1N17 THRU 1N19)

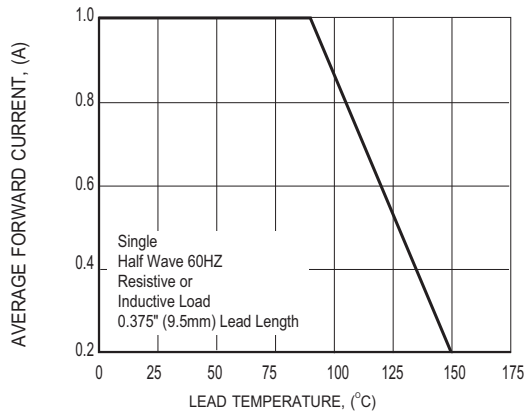


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

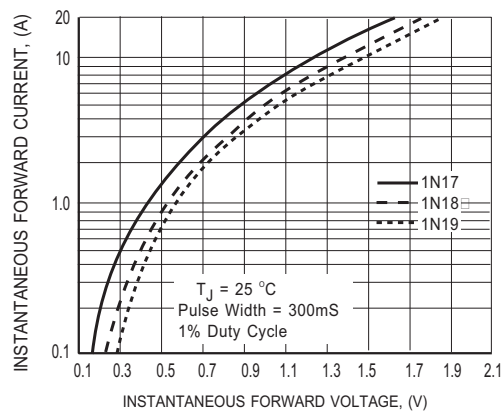


FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

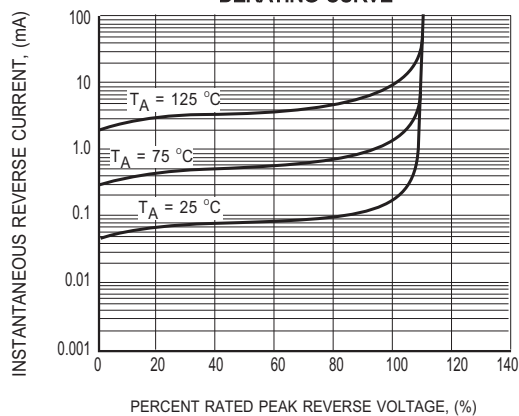


FIG.3 TYPICAL REVERSE CHARACTERISTICS

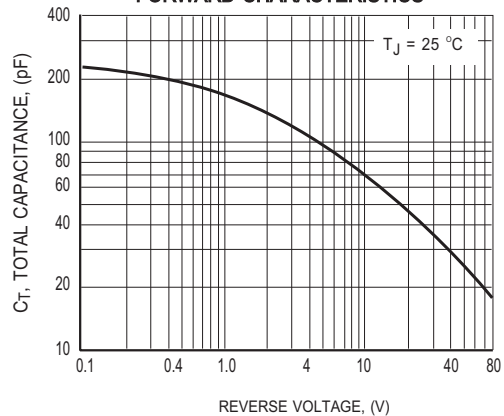


FIG.4 TYPICAL JUNCTION CAPACITANCE

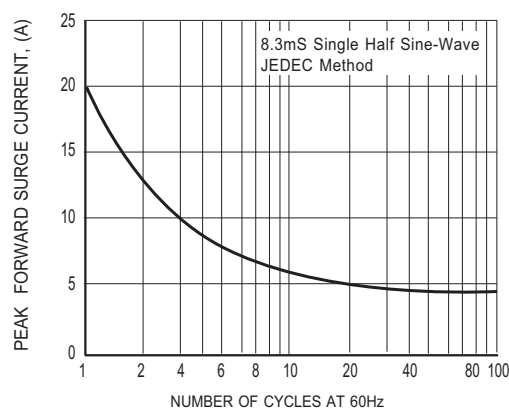
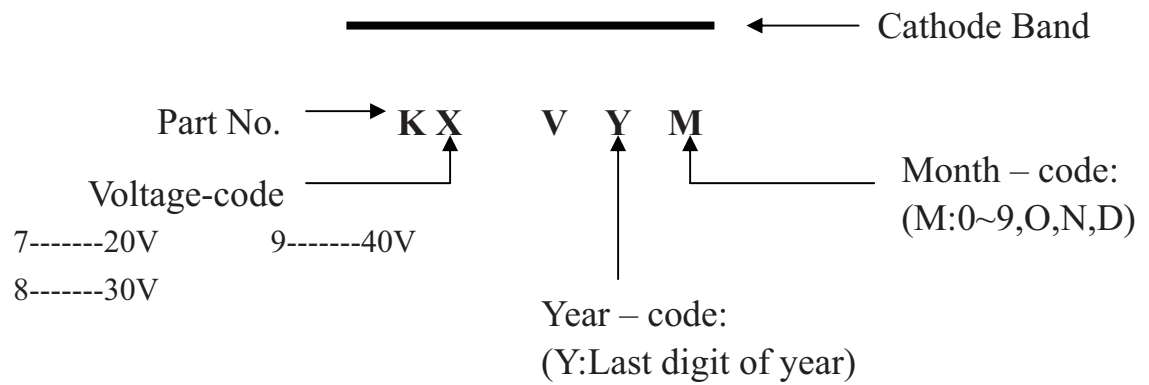


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
R-1	-T	5,000	5,000	5.0	52	330	355*350*335	20,000	7.37

AMMO PACK

PACKAGE	PACKING CODE	REEL (EA)	COMPONENT SPACE(mm)	TAPE SPACE (mm)	BOX SIZE (mm)	CARTON SIZE(mm)	CARTON (EA)	GROSS WEIGHT (Kg)
R-1	-F	3,000	5.0	52	255*73*100	400*268*225	30,000	8.5
R-1	-E	3,000	5.0	26	256*48*94	365*270*217	42,000	8.35
R-1	-J	3,000	12.7	---	325*170*40	355*350*335	42,000	13.93
R-1	-I	2,000	12.7	---	325*170*40	355*350*335	28,000	9.69

BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
R-1	-B	1000	192*75*21	415*220*255	50,000	11.74

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