BY296 THRU BY299

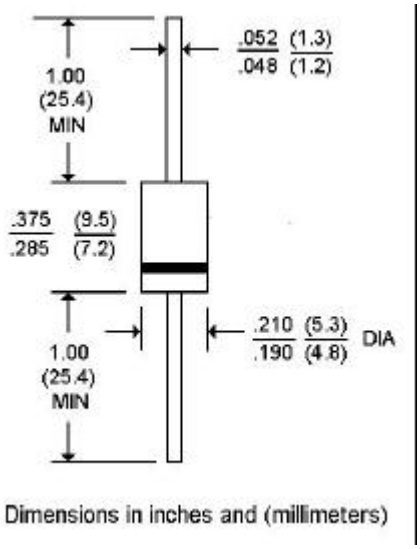
SOFT RECOVERY PLASTIC RECTIFIER

VOLTAGE - 100 to 800 Volts CURRENT - 2.0 Amperes

FEATURES

- High surge current capability
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-O
- Void-free plastic package
- 2.0 Ampere operation at T_A=55 ¢J with no thermal runaway
- Fast switching for high efficiency
- Exceeds environmental standards of MIL-S-19500/228

DO-201AD



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, DO-201AD

Terminals: Axial leads, solderable per MIL-STD-202, Method 208

Polarity: Band denotes end

Mounting Position: Any

Weight: .04 ounce, 1.1gran

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ¢J ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	SYMBOLS	BY296	BY297	BY298	BY299	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	400	800	Volts
Maximum RMS Voltage	V_{RMS}	70	140	280	560	Volts
Maximum DC Blocking Voltage	V_{DC}	100	200	400	800	Volts
Maximum Average Forward Rectified Current .375"(9.5mm) lead lengths at T_A=55 ¢J	$1_{(AV)}$	2.0				Amps
Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load	1_{FSM}	70.0				Amps
Maximum Repetitive Peak Forward Surge (Note 1)	1_{FRM}	10.0				Amps
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.3				Volts
Maximum DC Reverse Current T_A=25 ¢J At Rated DC Blocking Voltage T_A=100 ¢J	I_R	10.0 500				£g A
Maximum Reverse Recovery Time (Note 3) T_J=25 ¢J	T_{RR}	150				ns
Typical Junction Capacitance (Note 2) T_J=25 ¢J	C_J	28.0				pf
Typical Thermal Resistance (Note 4)	R £KJA	15.0				¢J/W
Operating Temperature Range	T_J	-50 to +125				¢J
Storage Temperature Range	T_{STG}	-50 to -150				¢J

NOTES:

1. Repetitive Peak Forward Surge Current at f<15HKz.
2. Measured at 1 MHz. And applied reverse voltage of 4.0 volts.
3. Reverse Recovery Test Conditions; I_F=0.5A,I_R=1.0A,Irr=0.25A.
4. Thermal Resistance from Junction to Ambient at .375"(9.5mm) lead lengths with both leads to heat sink.

RATING AND CHARACTERISTIC CURVES

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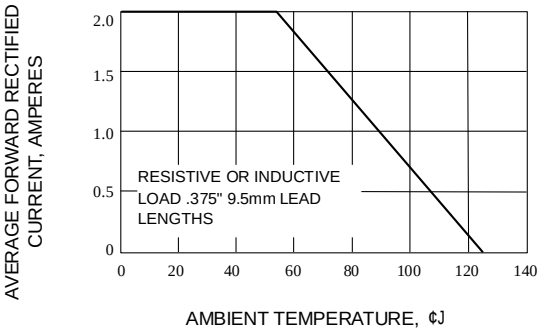

Fig. 1-FORWARD CURRENT DERATING CURVE

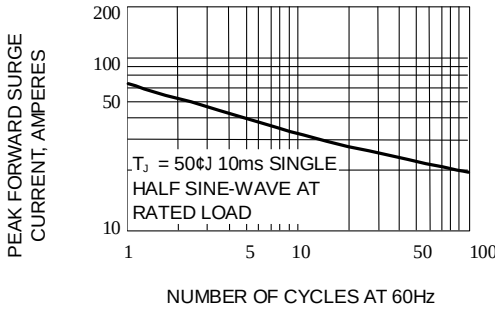

Fig. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

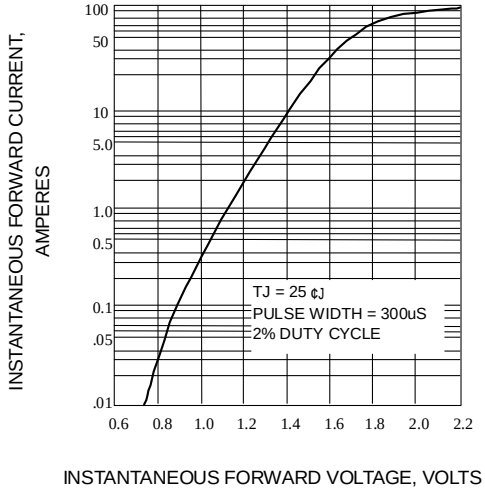

Fig. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

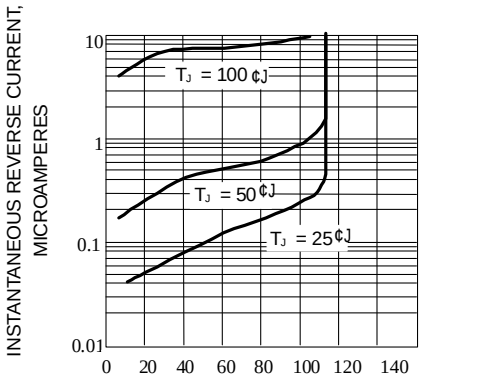

Fig. 4-TYPICAL REVERSE CHARACTERISTICS

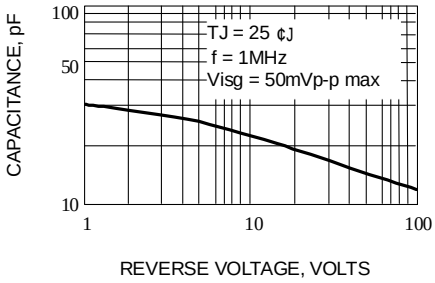

Fig. 5-TYPICAL JUNCTION CAPACITANCE