

BY296 thru BY299

SOFT RECOVERY PLASTIC RECTIFIER



**CHENG-YI
ELECTRONIC**



VOLTAGE-100 TO 800 Volts
CURRENT -2.0 Ampere

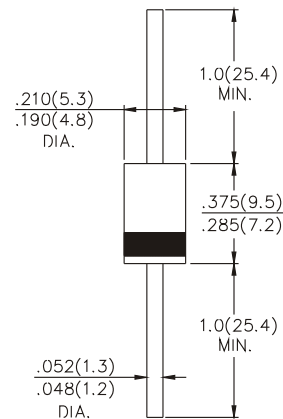
FEATURE

- High surge current capability
- The Plastic package carries Underwriters.
- Laboratory Flammability classification 94V-O
2.0 Ampere operation at $T_A=55^\circ\text{C}$ with no thermal runaway.
- Fast switching for high efficiency
- Exceeds environmental standard of MIL-STD-19500/228.

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: 0.04 ounce, 1.1 gram

DO-201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

		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 length at $T_A=55^\circ\text{C}$	$I_{(AV)}$	2.0				Amps
Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load	I_{FSM}	70.0				Amps
Maximum Repetitive Peak Forward Surge (Note 1)	I_{FRM}	10.0				Amps
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.3				Volts
Maximum DC Reverse Current $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	I_R	10.0 500				μA
Maximum Reverse Recovery Time (Note 3) $T_J=25^\circ\text{C}$	T_{RR}	150				nS
Typical Junction Capacitance (Note 2) $T_J=25^\circ\text{C}$	C_J	28.0				pF
Typical Thermal Resistance (Note 4)	$R_{\theta JA}$	15.0				$^\circ\text{C} / \text{W}$
Operating Temperature Range	T_J	-50 to +125				$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-50 to +150				$^\circ\text{C}$

- Notes : 1. Repetitive Peak Forward Surge Current at $f < 15\text{KHz}$.
2. Measured at 1MHz and applied reverse voltage of 4.0 volts.
3. Reverse Recovery Test Conditions : $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$.
4. Thermal Resistance from Junction to Ambient at .375" (9.5mm) lead lengths with both leads to heat sink.

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RATING AND CHARACTERISTICS CURVES BY296 THRU BY299

Fig.1 - FORWARD CURRENT DERATING CURVE

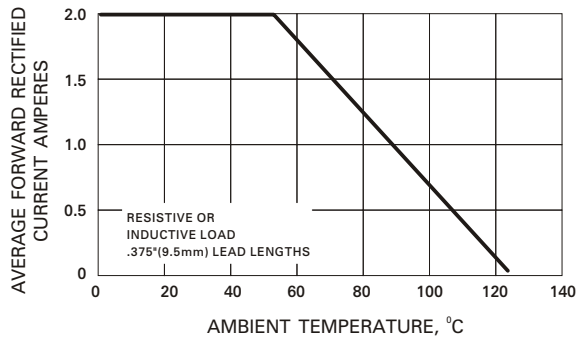


Fig.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

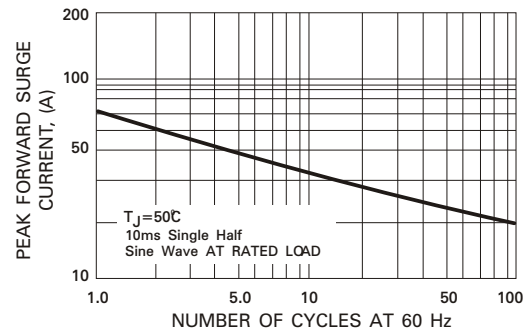


Fig.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

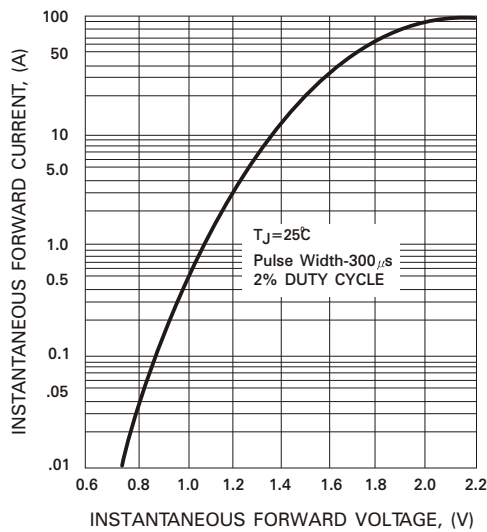


Fig.4- TYPICAL REVERSE CHARACTERISTICS

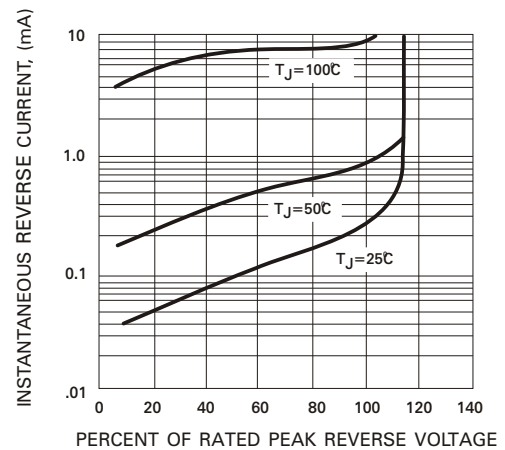


Fig.5 - TYPICAL JUNCTION CAPACITANCE

