

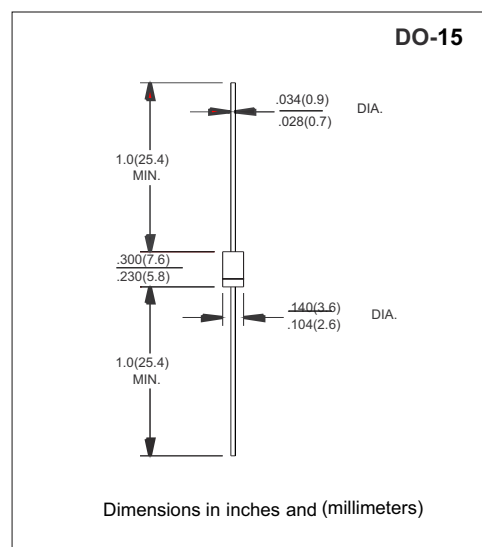
FAST RECOVERY RECTIFIER

FEATURES

- Low cost construction
- Fast switching for high efficiency.
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
260°C/10 secods/.375"(9.5mm)lead length at 5 lbs(2.3kg) tension

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-O rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.014 ounce, 0.39 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25 °C ambient temperature unless otherwise specified Single Phase, half wave, 60Hz, resistive or inductive load for capacitive load derate current by 20%

PARAMETER		SYMBOLS	BY296	BY297	BY298	BY299	UNITS
Maximum Repetitive 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 0.375”(9.5mm) lead length at T _A = 75℃		I _(AV)	2.0				Amp
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)		I _{FSM}	70				Amps
Maximum Instantaneous Forward Voltage @ 2.0A		V _F	1.3				Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A = 25℃	I _R	5.0				μA
	T _A = 100℃		200				
Maximum Reverse Recovery Time (Note 3) T _J =25℃		trr	500				ns
Typical Junction Capacitance (Note 1)		C _J	25				pF
Typical Thermal Resistance (Note 2)		R _{θJA}	40				℃/W
Operating Junction Temperature Range		T _J	(-55 to +150)				℃
Storage Temperature Range		T _{STG}	(-55 to +150)				℃

Notes:

- 1.Measured at 1.0MHz and Applied Reverse Voltage of 4.0Volts.
- 2 Thermal Resistance from junction to Ambient at .375"(9.5mm)lead length, P.C.board mounted.
- 3.Reverse Recovery Test Conditions: $I_F = 10\text{mA}$, $I_R = 10\text{mA}$, $I_{rr} = 1\text{A}$

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RATING AND CHARACTERISTIC CURVES BY296 - BY299

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

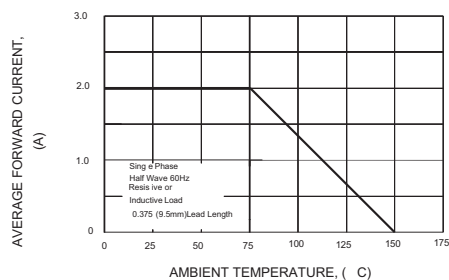


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

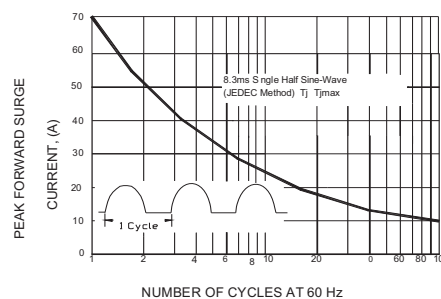


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

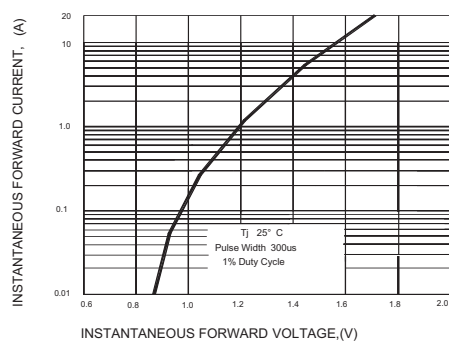


FIG.4-TYPICAL REVERSE CHARACTERISTICS

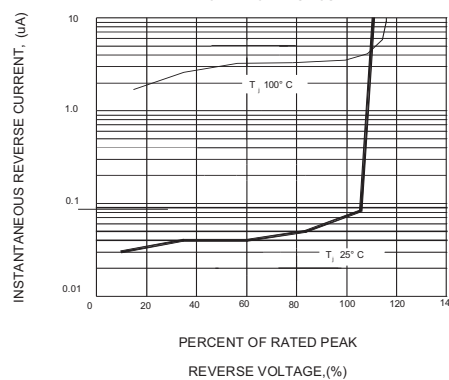


FIG.5-TYPICAL JUNCTION CAPACITANCE

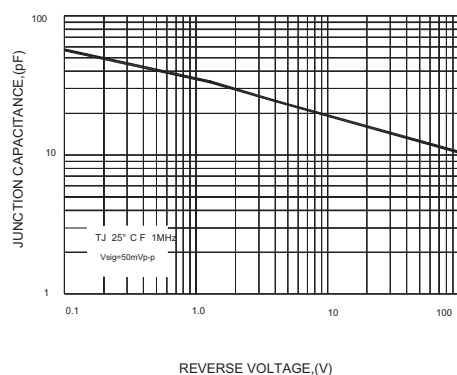
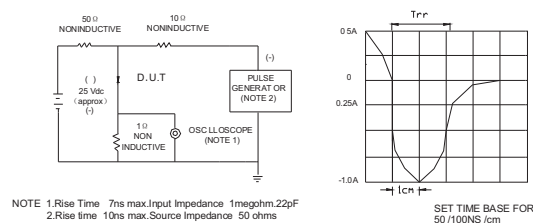


FIG.6 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.