FAST RECOVERY RECTIFIER
BY296 Thru BY299 2.0 Amps

RFE INTERNATIONAL

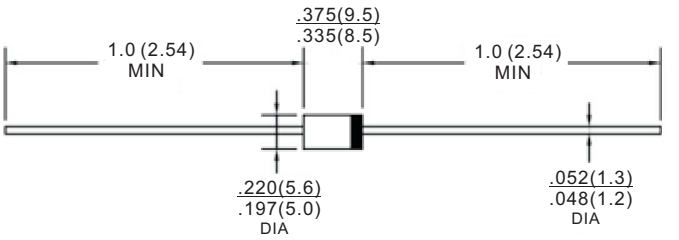
RoHS

FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

MECHANICAL DATA

- Molded plastic body (UL 94V-0 rated)
- Lead: Axial leads, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode end
- High temperature soldering 250°C/10 seconds
- Weight: 1.20 gram



DO-201AD

Dimensions in inches and (millimeters)

MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	BY296	BY297	BY298	BY299	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	800	V
Maximum RMS Voltage	V_{RMS}	70	140	280	560	V
Maximum DC blocking Voltage	V_{DC}	100	200	400	800	V
Maximum Average Forward Rectified Current .375" (9.5mm) Lead length@T_A=55°C	$I_{F(AV)}$	2.0				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	70				A
Maximum Instantaneous Forward Voltage@6.0A	V_F	1.2				V
Maximum DC Reverse Current @ T_A=25°C at rated DC Blocking voltage @ T_A=100°C	I_R	5.0 50				μA
Maximun Reverse Recovery Time (Note 1)	T_{RR}	250				nS
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	20				°C/W
Operating Temperature Range	T_J	-65 to + 150				°C
Storage Temperature Range	T_{STG}	-65 to + 150				°C

NOTE: 1. Reverse Recovery Test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.
2. Mounted on Cu-Pad Size 16mm x 16mm on P.C.B.

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RATING & CHARACTERISTIC CURVES

FIG.1-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

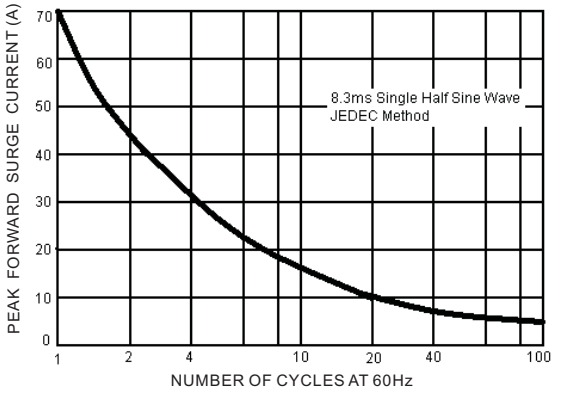


FIG.2-MAXIMUM FORWARD CURRENT DERATING

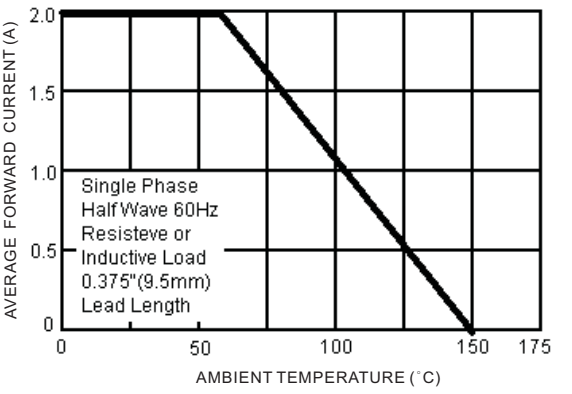


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

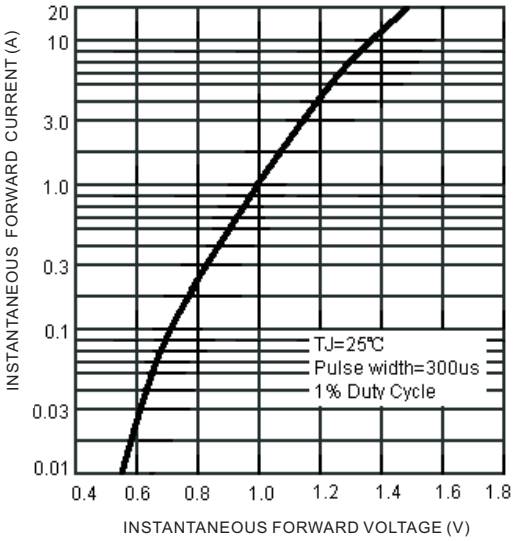


FIG.4-TYPICAL REVERSE CHARACTERISTICS

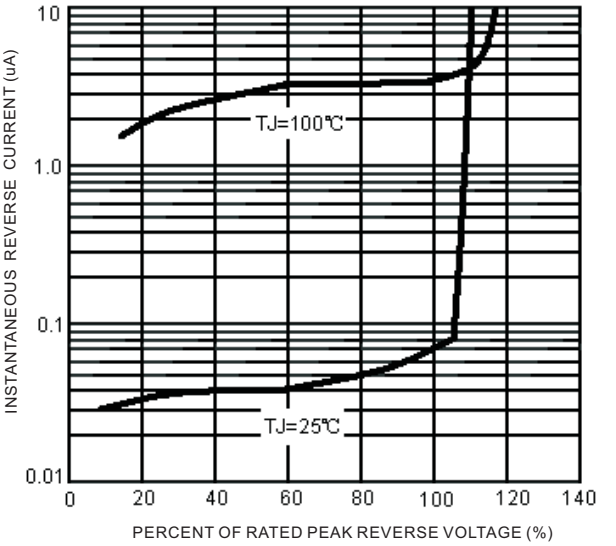
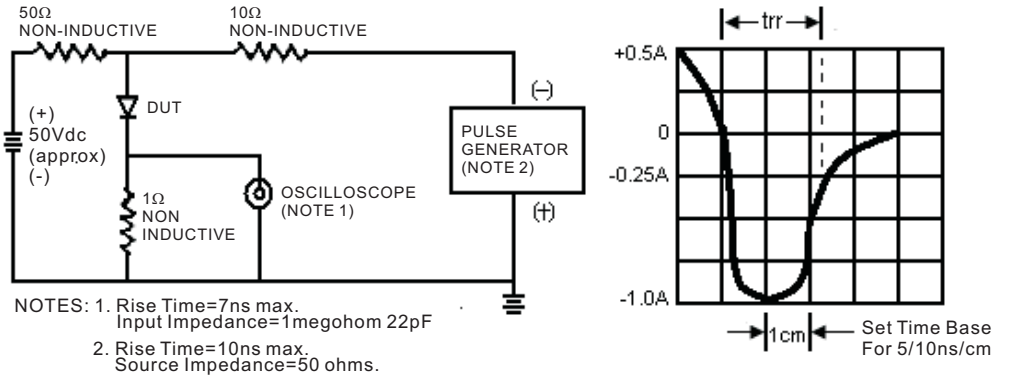


FIG.5-REVERSE RECOVER TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time=7ns max.
Input Impedance=1megohom 22pF
2. Rise Time=10ns max.
Source Impedance=50 ohms.

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