



ARGP10D THRU ARGP10M

Fast Soft-Recovery Controlled Avalanche Rectifiers



Voltage Range
200 to 1000 Volts

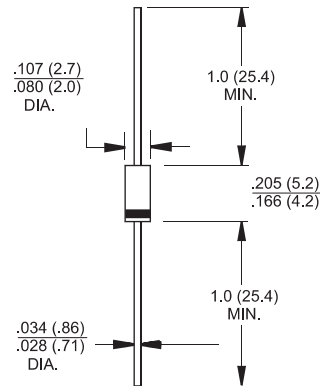
Features

- High temperature metallurgically bonded constructed
- Plastic material used carries Underwriters Laboratory Classification 94V-0
- Glass passivated cavity-free junction
- High maximum operating temperature
- Low leakage current
- Excellent stability
- Guaranteed avalanche energy absorption capability
- High temperature soldering guaranteed:
350°C / 10 seconds, 0.375"(9.5mm) lead length, 5 lbs., (2.3kg) tension.

Mechanical Data

- Case: JEDEC DO-41 molded plastic over glass body
- Lead: Plated Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.012 ounce, 0.3 gram

DO-41



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Type Number	Symbol	ARGP 10D	ARGP 10G	ARGP 10J	ARGP 10K	ARGP 10M	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _R	200	400	600	800	1000	V
Min. Reverse Avalanche Breakdown Voltage @ IR=0.1mA	V _{(BR)R}	300	500	700	900	1100	V
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length @ T _{tp} = 55°C	I _{F(AV)}	1.3					A
Peak Forward Surge Current @ t= 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) @ t=10ms half sine wave, T _j =T _j max prior to surge, V _R =V _{RRM} max	I _{FSM}	30 20					A A
Non-repetitive Peak Reverse Avalanche Energy L=120mH T _j =125°C max prior to Surge, Inductive load Switched off	E _{RSM}	10			7		mJ
Maximum Instantaneous Forward Voltage @ IF= 1.0A @ IF=1A, T _j =T _j max.	V _F	1.3 1.1					V V
Maximum DC Reverse Current @ T _j =25°C at Rated DC Blocking Voltage @ T _j =165°C	I _R	1.0 100.0					uA uA
Maximum Reverse Recovery Time (Note 1) T _j =25°C	T _{rr}	250			300		nS
Typical Junction Capacitance (Note 2)	C _j	15.0					pF
Typical Thermal Resistance (Note 3)	R _{θJA} R _{θTP}	120 55					°C/W
Operating Temperature Range T _j	T _j	-65 to + 175					°C
Storage Temperature Range T _{STG}	T _{STG}	-65 to + 175					°C

Notes: 1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$ Recover to 0.25A.

2. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0 Volts.

3. Mount on Cu-Pad Size 5mm x 5mm on P.C.B.

RATINGS AND CHARACTERISTIC CURVES (ARGP10D THRU ARGP10M)

FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

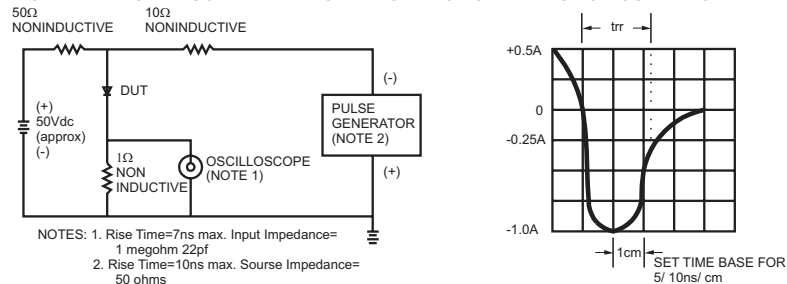


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

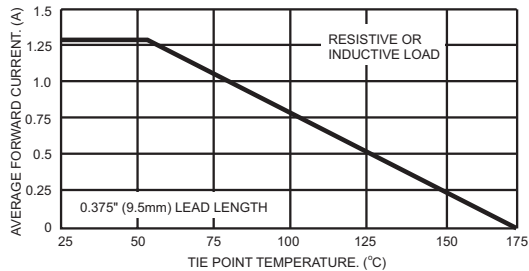


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

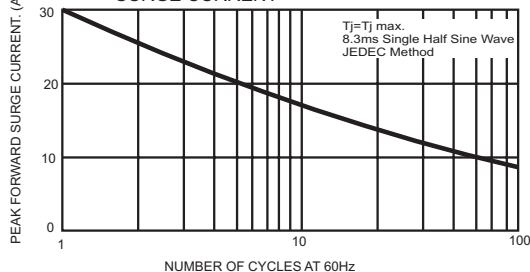


FIG.4- TYPICAL JUNCTION CAPACITANCE

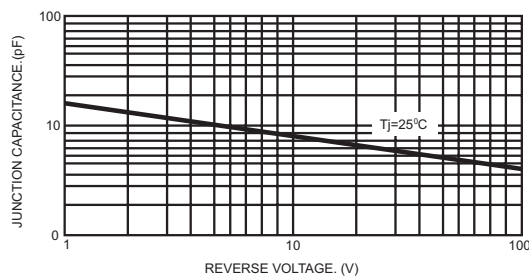


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

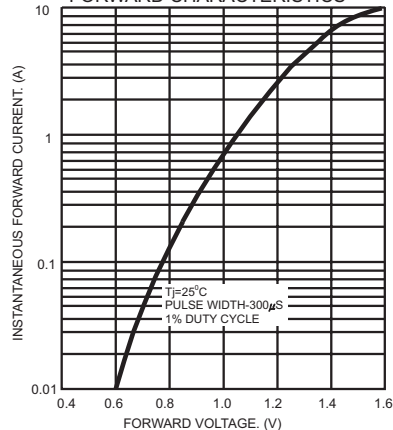


FIG.6- TYPICAL REVERSE CHARACTERISTICS

