

HIGH VOLTAGE FAST RECOVERY DIODES

FEATURES

- PROPRIETARY *SOFT GLASS*[®] JUNCTION PASSIVATION FOR SUPERIOR RELIABILITY AND PERFORMANCE
- VOID FREE VACUUM DIE SOLDERING FOR MAXIMUM MECHANICAL STRENGTH AND HEAT DISSIPATION (Solder Voids: Typical $\leq 2\%$, Max. $\leq 10\%$ of Die Area)
- EXTREMELY LOW LEAKAGE AT HIGH TEMPERATURES
- LOW FORWARD VOLTAGE DROP
- HIGH CURRENT CAPABILITY

MECHANICAL DATA

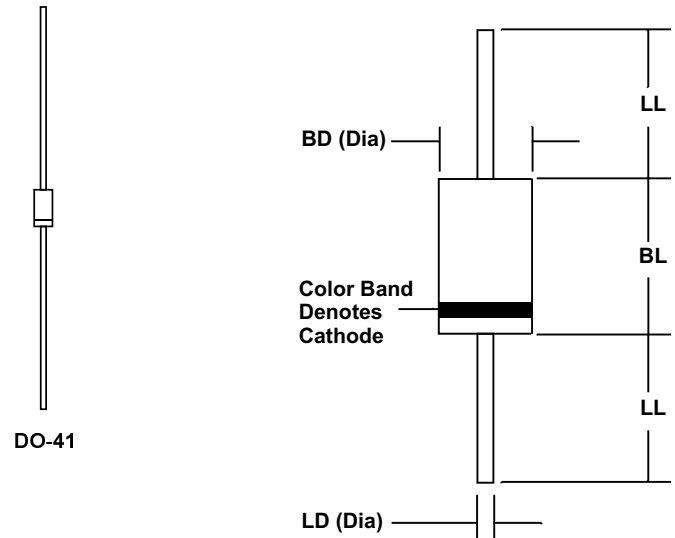
- Case: JEDEC DO-41 molded epoxy (U/L Flammability Rating 94V-0)
- Terminals: Plated axial leads
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Color band denotes cathode
- Mounting Position: Any
- Weight: DO-41 - 0.012 Ounces (0.34 Grams)

RoHS COMPLIANT

MECHANICAL SPECIFICATION

ACTUAL SIZE OF DO-41 PACKAGE

SERIES RGP1120 - RGP1500



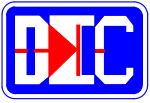
Sym	Minimum		Maximum	
	In	mm	In	mm
BL	0.160	4.1	0.205	5.2
BD	0.103	2.6	0.107	2.7
LL	1.00	25.4		
LD	0.028	0.71	0.034	0.86

MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

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

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS									UNITS
		RGP 1120	RGP 1150	RGP 1180	RGP 1200	RGP 1250	RGP 1300	RGP 1400	RGP 1500		
Series Number											
Maximum DC Blocking Voltage	V _{RM}	1200	1500	1800	2000	2500	3000	4000	5000		
Maximum RMS Voltage	V _{RMS}	840	1050	1260	1400	1750	2100	2800	3500	VOLTS	
Maximum Peak Recurrent Reverse Voltage	V _{RRM}	1200	1500	1800	2000	2500	3000	4000	5000		
Average Forward Rectified Current @ T _A = 50 °C (Lead length = 0.375 in. (9.5 mm))	I _O	800			400			200			mA
Peak Forward Surge Current (8.3 mSec single half sine wave superimposed on rated load)	I _{FSM}	30			20			10			AMPS
Maximum Forward Voltage at Rated Forward Current	V _{FM}	2.5			4.5			6.5			VOLTS
Maximum Average DC Reverse Current At Rated DC Blocking Voltage @ T _A = 25°C	I _{RM}	1.0									µA
Maximum Reverse Recovery Time (I _F =0.5A, I _R =1A, I _{RR} =0.25A)	T _{RR}	500									nS
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +125				-65 to +150					°C

2319/1120



HIGH VOLTAGE FAST RECOVERY RECTIFIERS

RATING & CHARACTERISTIC CURVES FOR SERIES RGP1120 - RGP1500

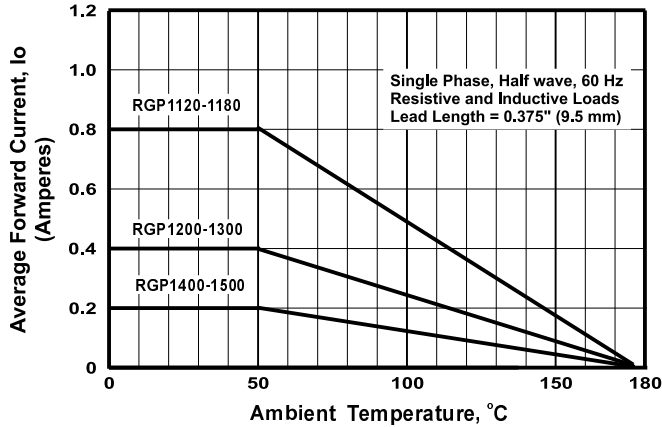


FIGURE 1. FORWARD CURRENT DERATING CURVE

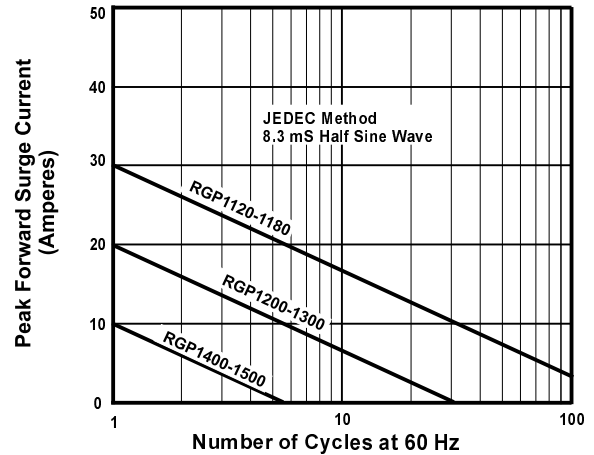


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

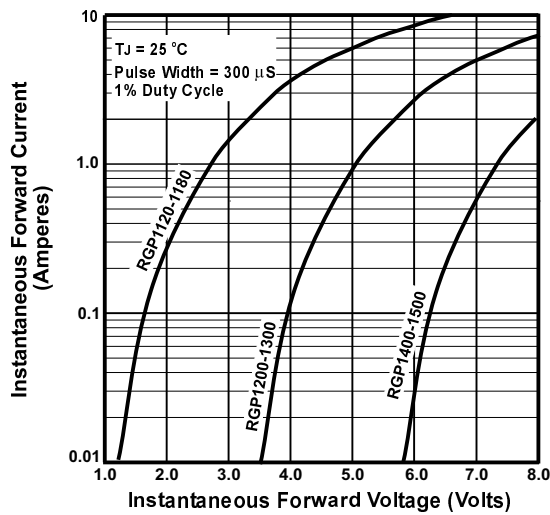


FIGURE 3. TYPICAL FORWARD CHARACTERISTIC

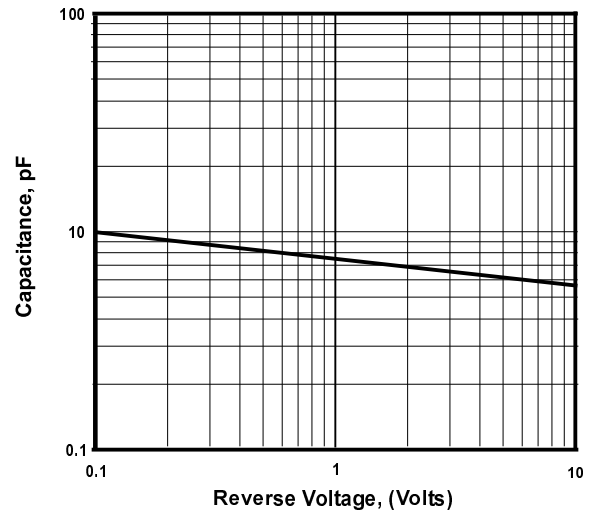


FIGURE 4. TYPICAL JUNCTION CAPACITANCE

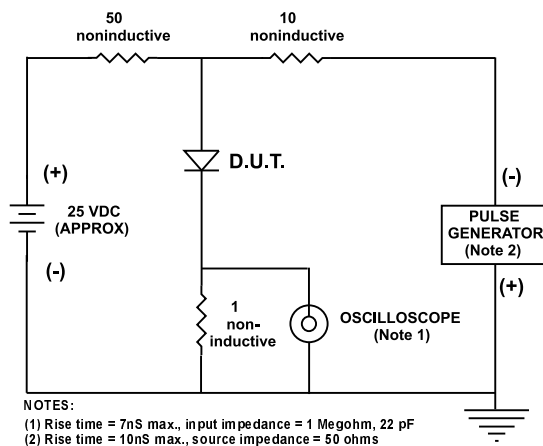


FIGURE 5. REVERSE RECOVERY TEST SETUP AND TIME CHARACTERISTIC