

1 AMP FAST RECOVERY SILICON DIODES

FEATURES

- Low cost
- Low leakage
- Low forward voltage drop
- High current capacity
- Fast switching for high efficiency
- **RoHS COMPLIANT**

MECHANICAL DATA

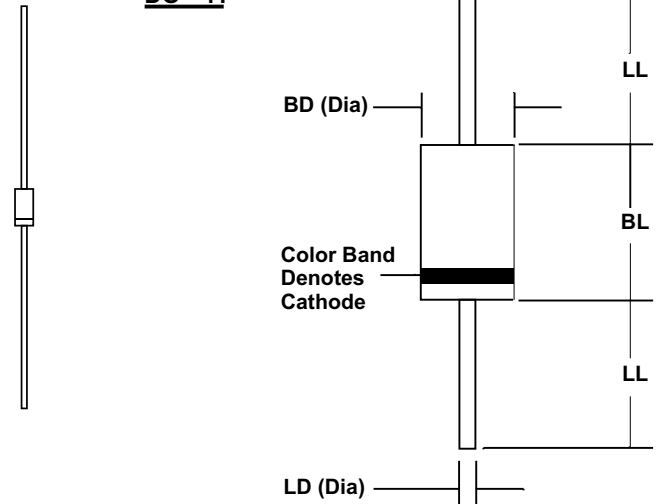
- Case: JEDEC DO-41, molded epoxy (UL Flammability Rating 94V-0)
- Terminals: Plated axial leads
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Color band denotes cathode
- Mounting Position: Any
- Weight: 0.012 Ounces (0.34 Grams)

MECHANICAL SPECIFICATION

ACTUAL SIZE OF
DO-41 PACKAGE

SERIES RP100 - RP110

DO - 41



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
		RP100	RP101	RP102	RP104	RP106	RP108	RP110		
Series Number										
Maximum DC Blocking Voltage	V _{RM}	50	100	200	400	600	800	1000		VOLTS
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700		
Maximum Peak Recurrent Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000		
Average Forward Rectified Current @ T _A = 75 °C (Lead length = 0.375 in. (9.5 mm))	I _O	1								AMPS
Peak Forward Surge Current (8.3 mSec single half sine wave superimposed on rated load)	I _{FSM}	30								
Maximum Forward Voltage at 1 Amp DC	V _{FM}	1.3								VOLTS
Maximum Reverse Recovery Time (I _F =0.5A, I _R =1A, I _{RR} =0.25A)	T _{RR}	150				250	500 (Note 3)			nS
Maximum Average DC Reverse Current At Rated DC Blocking Voltage	I _{RM}	5 50								μA
Typical Thermal Resistance, Junction to Ambient (Note 1)	R _{θJA}	50								°C/W
Typical Junction Capacitance (Note 2)	C _J	15								pF
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175								°C

NOTES: (1) Thermal resistance junction to ambient with diode mounted on PC Board and lead lengths = 0.375 in. (9.5 mm)
 (2) Measured at 1MHz & applied reverse voltage of 4 volts
 (3) 300nS available - consult factory

43715dpt13



1 AMP FAST RECOVERY SILICON DIODES

RATING & CHARACTERISTIC CURVES FOR SERIES RP100 - RP110

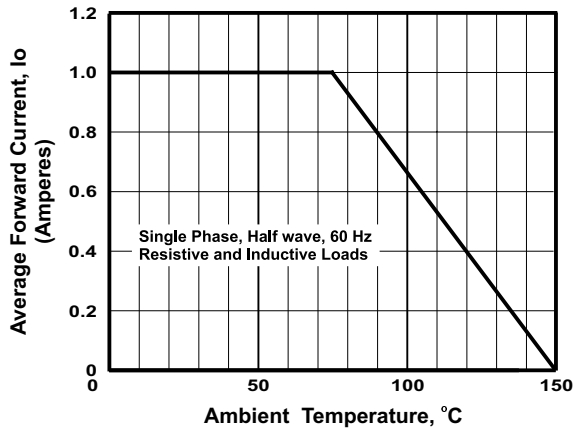


FIGURE 1. FORWARD CURRENT DERATING CURVE

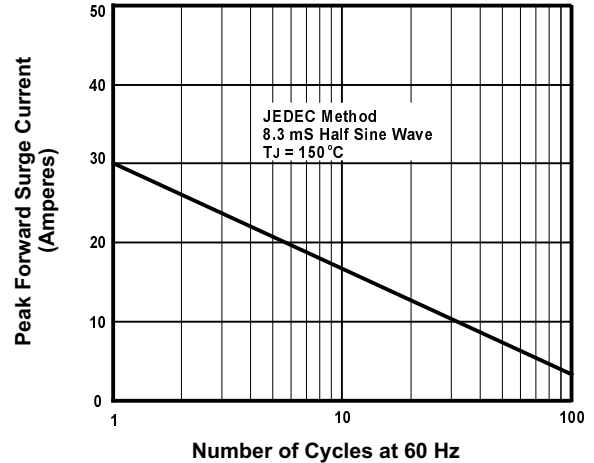


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

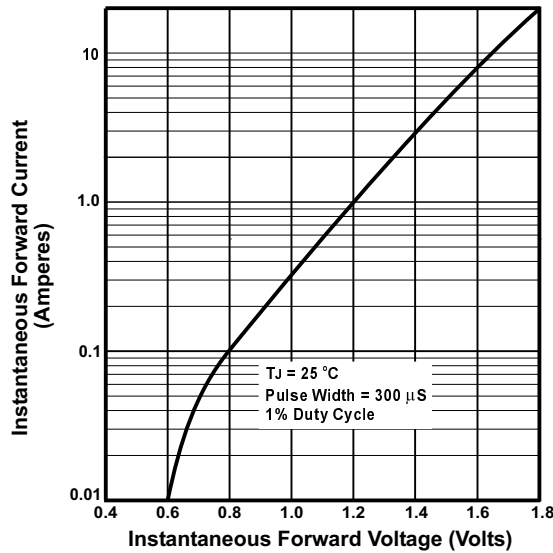


FIGURE 3. TYPICAL FORWARD CHARACTERISTIC

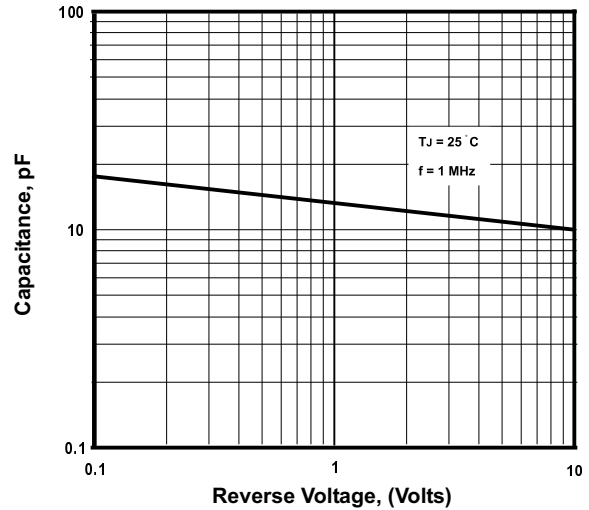


FIGURE 4. TYPICAL JUNCTION CAPACITANCE

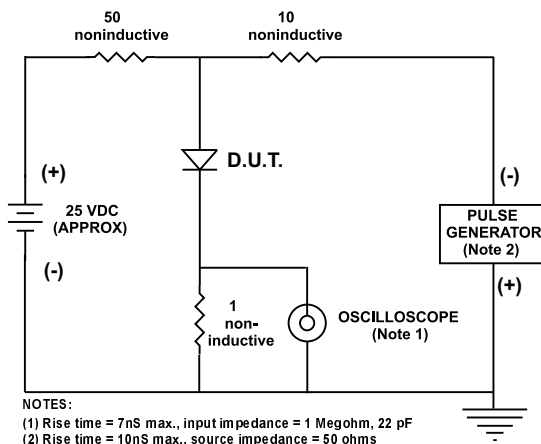


FIGURE 5. REVERSE RECOVERY TEST SETUP AND TIME CHARACTERISTIC