

1SR153-100 ~ 1SR153-400

FAST RECOVERY RECTIFIER DIODES

PRV : 400 Volts

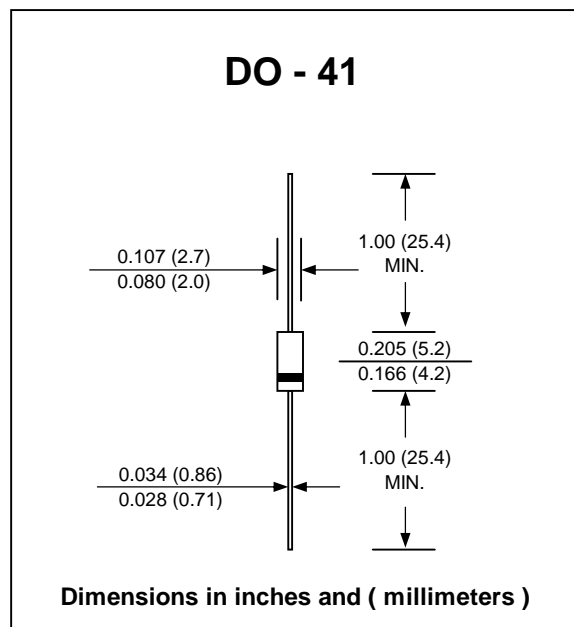
Io : 0.8 Ampere

FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Fast switching for high efficiency
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : DO-41 Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.339 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

RATING	SYMBOL	1SR153 -100	1SR153 -200	1SR153 -400	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	100	200	400	V
Maximum RMS Voltage	VRMS	70	140	280	V
Maximum DC Blocking Voltage	VDC	100	200	400	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length Ta = 55 °C	IF(AV)	0.8			A
Maximum Peak Forward Surge Current, 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	IFSM	35			A
Maximum Peak Forward Voltage at IF = 0.8 A	VF	1.3			V
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta = 100 °C	IR	5			µA
	IR(H)	50			µA
Maximum Reverse Recovery Time (Note 1)	Trr	250			ns
Typical Junction Capacitance (Note 2)	CJ	50			pf
Junction Temperature Range	TJ	- 65 to + 150			°C
Storage Temperature Range	TSTG	- 65 to + 150			°C

Notes : (1) Reverse Recovery Test Conditions : IF = 0.5 A, IR = 1.0 A, Irr = 0.25 A.

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Vdc

RATING AND CHARACTERISTIC CURVES (1SR153-100 ~ 1SR153-400)

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

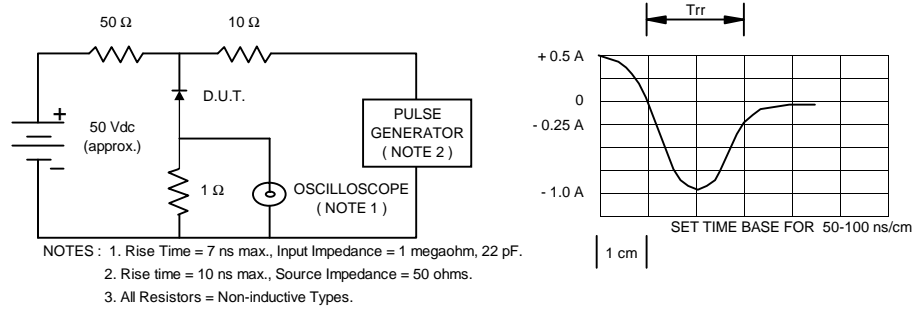


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

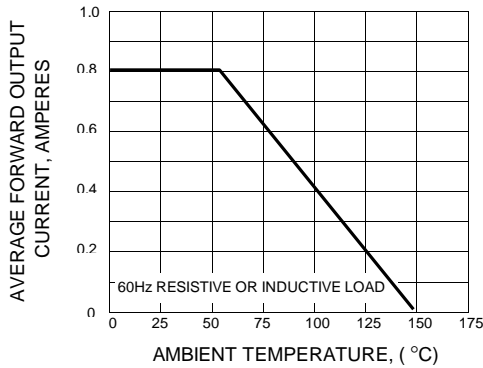


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

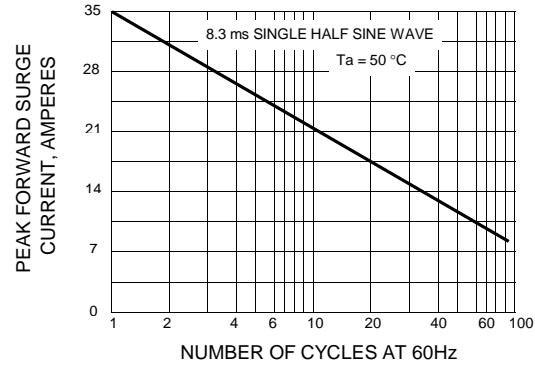


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

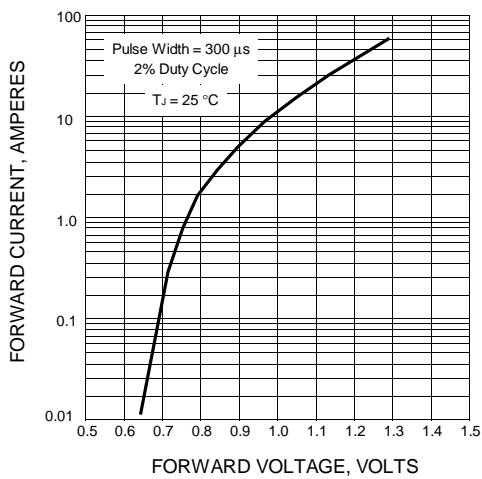


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

