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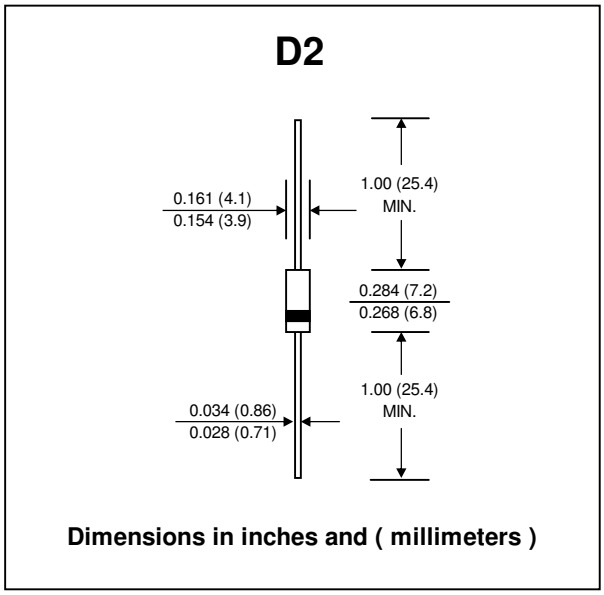
10ELS1 ~ 10ELS6

FAST RECOVERY DIODE

PRV : 100 ~ 400 Volts
Io : 1.0 Amperes



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 : D2 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 : 0.465 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%.

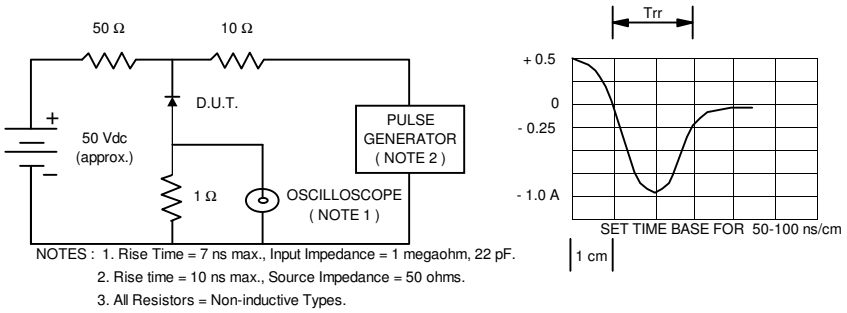
RATING	SYMBOL	10ELS1	10ELS2	10ELS4	10ELS6	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	400	600	V
Maximum RMS Voltage	V_{RMS}	70	140	210	280	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	V
Maximum Average Forward Current	$I_{F(AV)}$	1.0				A
Maximum Peak Forward Surge Current, 8.3ms Single half sine wave	I_{FSM}	30				A
Maximum Peak Forward Voltage at I_F = 1.0 A	V_F	1.1		1.15		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_{RM}	10				µA
Maximum Reverse Recovery Time (Note 1)	Trr	150				ns
Junction 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 = 0.5 A, I_R = 1.0 A, Irr = 0.25 A.

RATING AND CHARACTERISTIC CURVES (10ELS1 ~ 10ELS6)

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



NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.
2. Rise time = 10 ns max., Source Impedance = 50 ohms.
3. All Resistors = Non-inductive Types.

FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

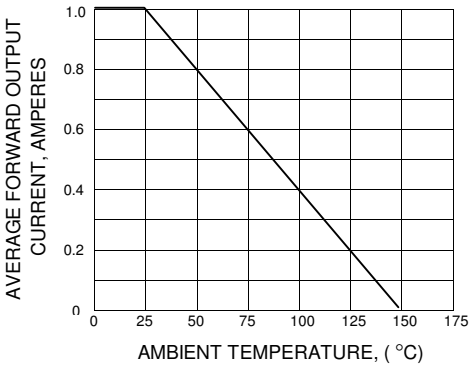


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

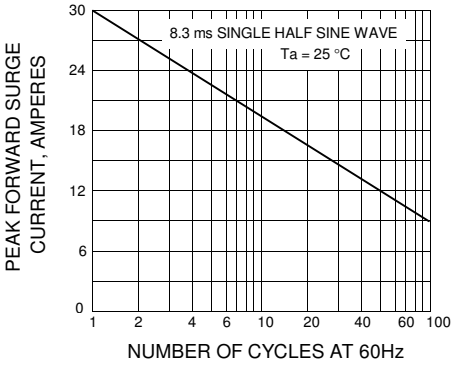


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

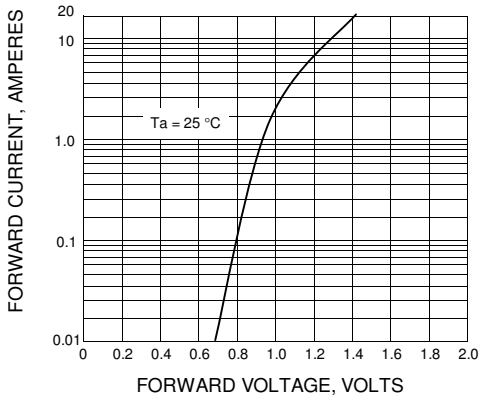


FIG.5 - TYPICAL REVERSE CHARACTERISTICS