15DF4 ~ 15DF8

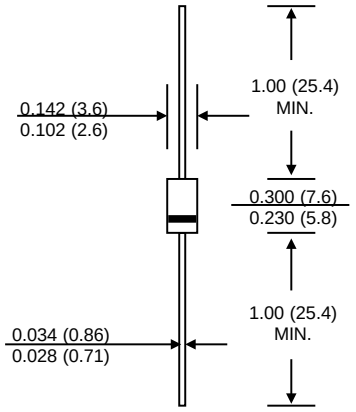
FAST RECOVERY DIODES

PRV : 400 - 800 Volts
Io : 1.3 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 : DO-15 Molded plastic
* Epoxy : UL94V-0 rate flame retardant
* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 0.4 gram

DO-15



Dimensions in inches and (millimeters)

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%.

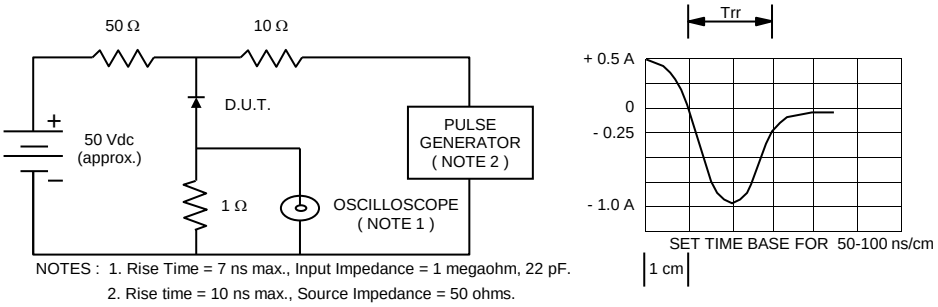
RATING	SYMBOL	15DF4	15DF6	15DF8	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	400	600	800	V
Maximum RMS Voltage	V_{RMS}	280	420	560	V
Maximum DC Blocking Voltage	V_{DC}	400	600	800	V
Maximum Average Forward Current Ta = 40°C	$I_{F(AV)}$	1.3			A
Maximum Peak Forward Surge Current, 8.3ms Single half sine wave	I_{FSM}	70			A
Maximum Peak Forward Voltage at I_F = 1.3 A	V_F	1.2			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 (15DF4 ~ 15DF8)

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

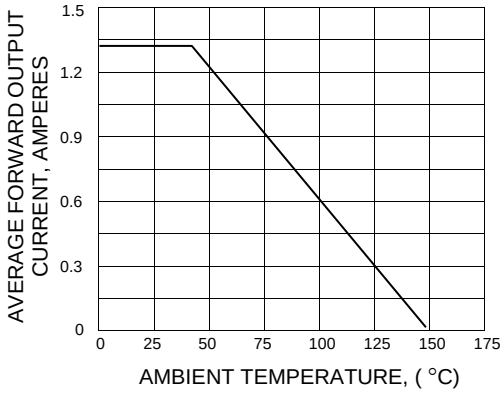


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

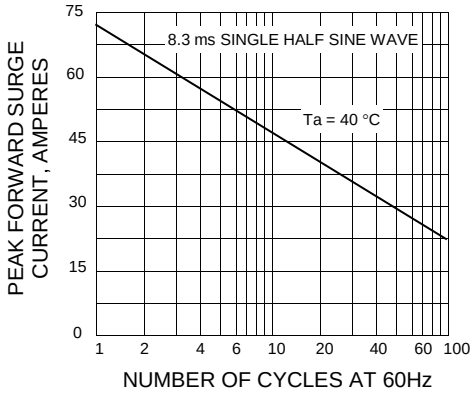


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

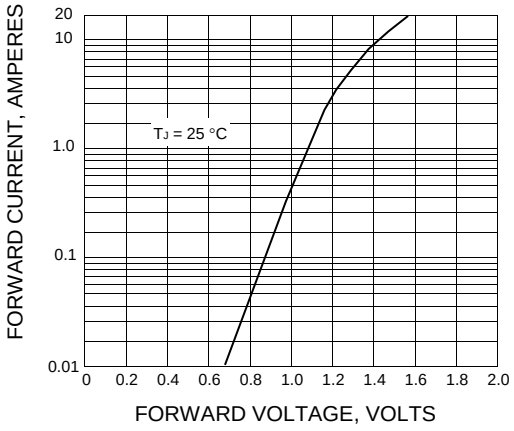


FIG.5 - TYPICAL REVERSE CHARACTERISTICS