Certificate Number: Q10561

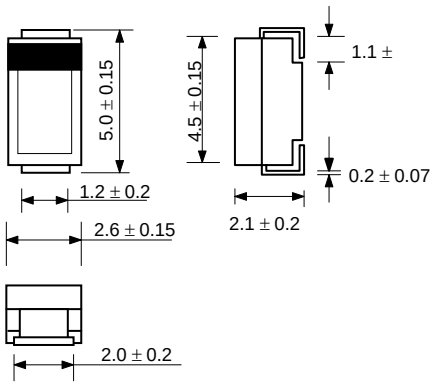
Certificate Number: E17276

SR1P

FAST RECOVERY RECTIFIER DIODE

PRV : 1600 Volts
Io : 0.5 Ampere

SMA (DO-214AC)



Dimensions in millimeter

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 : SMA Molded plastic
* Epoxy : UL94V-O rate flame retardant
* Lead : Lead Formed for Surface Mount
* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

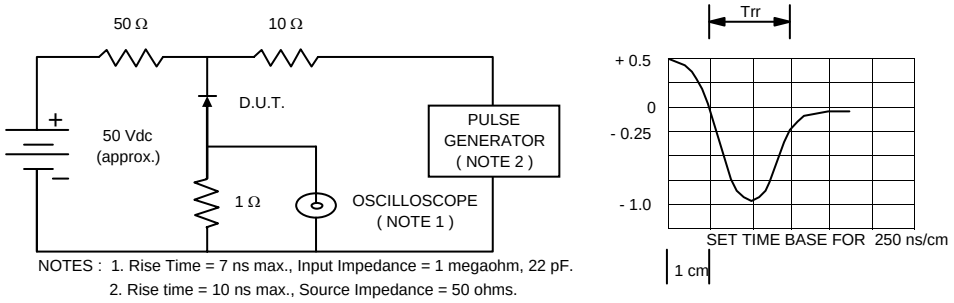
RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1600	V
Maximum RMS Voltage	V_{RMS}	1120	V
Maximum DC Blocking Voltage	V_{DC}	1600	V
Maximum Average Forward Current Ta = 75°C at 8.3 ms Single Half sine-wave	$I_{F(AV)}$	0.5	A
Maximum Non-Repetitive Peak Forward Surge Current	I_{FSM}	20	A
Maximum Peak Forward Voltage at I_F = 1.0 A	V_F	1.5	V
Maximum Reverse Current ($V_R = V_{RRM}$)	I_R	10	µA
Reverse Recovery Time (Note 1)	Trr	500	ns
Junction Temperature Range	T_J	- 40 to + 150	°C
Storage Temperature Range	T_{STG}	- 40 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 (SR1P)

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

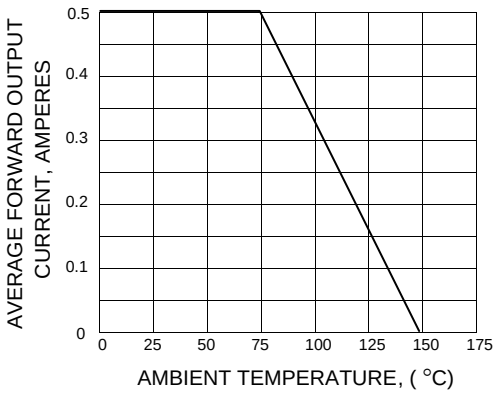


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

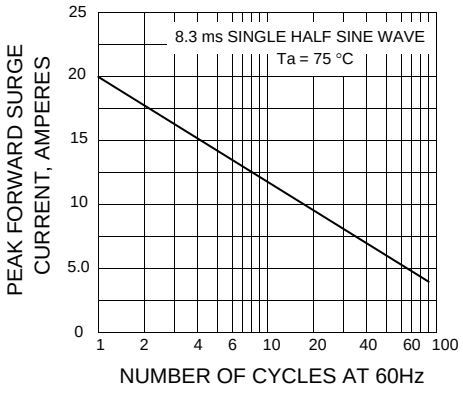


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

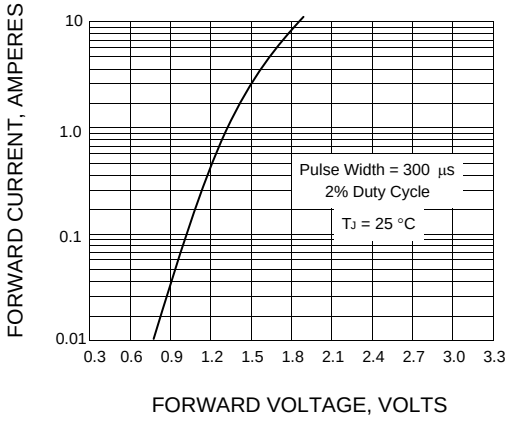


FIG.5 - TYPICAL REVERSE CHARACTERISTICS