Certificate Number: Q10561

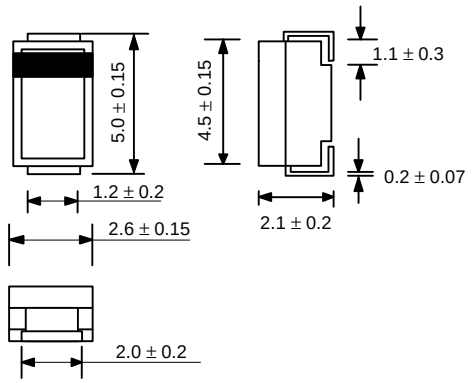
Certificate Number: E17276

SL12 - SL13

LOW V_F SURFACE MOUNT SCHOTTKY RECTIFIERS

PRV : 20 - 30 Volts
I_O : 1.5 Amperes

SMA (DO-214AC)



Dimensions in millimeter

FEATURES :

* High current capability
* High surge current capability
* High reliability
* High efficiency
* Low power loss
* Low cost
* Low forward voltage drop
* Pb / RoHS Free

MECHANICAL DATA :

* Case : SMA (DO-214AC) Molded plastic
* Epoxy : UL94V-O rate flame retardant
* Lead : Lead Formed for Surface Mount
* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 0.067 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	SL12	SL13	UNIT
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	20	30	V
Maximum RMS Voltage		V_{RMS}	14	21	V
Maximum DC Blocking Voltage		V_{DC}	20	30	V
Maximum Average Forward Current at T_L = 105 °C		$I_{F(AV)}$	1.5		A
Maximum Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC Method)		I_{FSM}	50		A
Maximum Instantaneous Forward Voltage at (1)	I_F = 0.1A , Ta = 125°C	V_F	0.230		V
	I_F = 0.1A , Ta = 25°C		0.360		
	I_F = 1.0A , Ta = 125°C		0.340		
	I_F = 1.0A , Ta = 25°C		0.445		
Maximum Reverse Current at Rated DC Blocking Voltage (1)	Ta = 25 °C	I_R	0.2		mA
	Ta = 100 °C		6.0		
Maximum Thermal Resistance (2)		RθJA	88		°C/W
		RθJL	28		°C/W
Operating Junction Temperature Range		T_J	- 55 to + 125		°C
Storage Temperature Range		T_{STG}	- 55 to + 150		°C

Notes: (1) Pulse Test : Pulse Width = 300 µs, Duty Cycle = 1%.

(2) P.C.B. Mounted on 0.2 x 0.2" (5.0 x 5.0mm) Copper Pad Areas

RATING AND CHARACTERISTIC CURVES (SL12 - SL13)

FIG.1 - FORWARD CURRENT DERATING CURVE

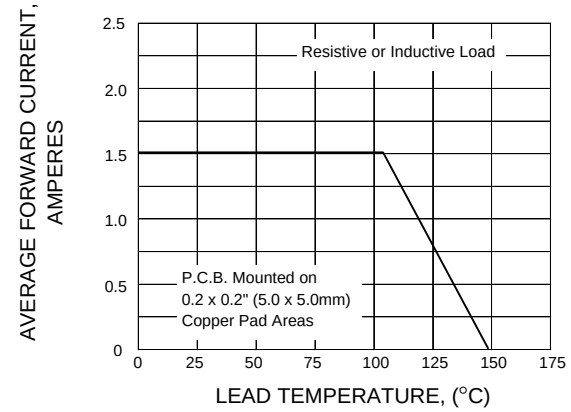


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

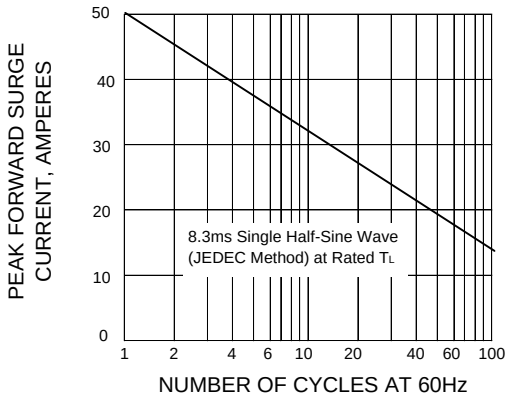


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

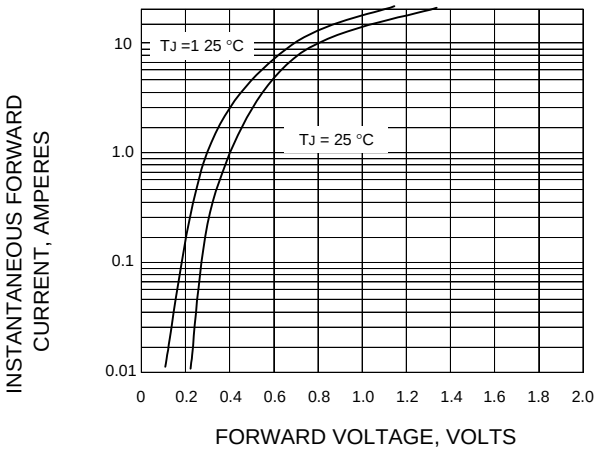


FIG.4 - TYPICAL REVERSE CHARACTERISTICS