

## **Features**

- Halogen Free. "Green" Device (Note 1)
- Fully Automotive Qualified to AEC-Q101
- Low Profile Package
- High Surge Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

# 2 Amp Surface Mount Schottky Rectifier 40 to 60 Volts

# Maximum Ratings @ 25°C (Unless Otherwise Specified)

		Va		
Parameter	Symbol	SMD24PLQ	SMD26PLQ	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>			
Working Peak Reverse Voltage	V <sub>RWM</sub>	40	60	V
DC Blocking Voltage	V <sub>R</sub>			
RMS Reverse Voltage	V <sub>RMS</sub>	28	42	V
Average Rectified Forward Current @ T <sub>L</sub> =110°C	I <sub>F(AV)</sub>	2		А
Non-Repetitive Peak Surge Current @8.3ms Half Sine Wave	I <sub>FSM</sub>	50		А
Current Squared Time @ 1ms≤t≤8.3ms	l <sup>2</sup> t	10.375		A <sup>2</sup> s

## Marking code

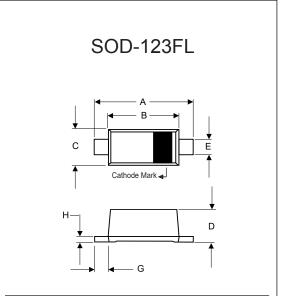
Part Number	Marking code
SMD24PLQ	M4
SMD26PLQ	M6

## **Internal Structure**

Pin	Description	Simplified outline	Graphic symbol
1	cathode	1 XXXX 2	
2	anode	XXXX = Marking code YYWW = Date Code	1 0

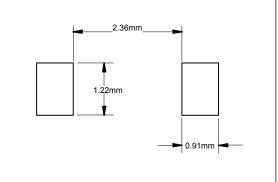
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.



DIMENSIONS					
DIM	INCHES		MM		NOTE
DIIVI	MIN	MAX	MIN	MAX	NOTE
Α	0.130	0.152	3.30	3.85	
В	0.100	0.122	2.55	3.10	
С	0.055	0.075	1.40	1.90	
D	0.035	0.053	0.90	1.35	
Е	0.020	0.041	0.50	1.05	
G	0.010		0.25		
Н		0.010		0.25	

## SUGGESTED SOLDER PAD LAYOUT





# Thermal characteristics

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
T <sub>J</sub>	Operating Junction Temperature Range		-55		150	°C
T <sub>stg</sub>	Storage Temperature Range		-55		150	°C
Rth <sub>(J-L)</sub>	Thermal Resistance from Junction to Lead	Note 1		35		°C/W
Rth <sub>(J-A)</sub>	Thermal Resistance from Junction to Ambient	Note 1		85		°C/W

#### Note:

# Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Тур	Max	Unit
Forward Voltage						
SMD24PLQ	V <sub>F</sub>	I <sub>F</sub> =2A;T <sub>J</sub> =25°C I <sub>F</sub> =2A;T <sub>J</sub> =125°C		0.50 0.42	0.55 0.45	V
SMD26PLQ		I <sub>F</sub> =2A;T <sub>J</sub> =25°C I <sub>F</sub> =2A;T <sub>J</sub> =125°C		0.60 0.55	0.70 0.63	
Reverse Current						
SMD24PLQ	I <sub>R</sub>	at Rated V <sub>R</sub> ;T <sub>J</sub> =25°C			0.1	mA
		at Rated V <sub>R</sub> ;T <sub>J</sub> =125°C			10	
SMD26PLQ		at Rated V <sub>R</sub> ;T <sub>J</sub> =25°C			0.1	
		at Rated V <sub>R</sub> ;T <sub>J</sub> =125°C			10	
Junction Capacitance						
SMD24PLQ SMD26PLQ	CJ	$V_R=4V; f=1MHz; T_J=25$ °C		115 95		pF

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<sup>1.</sup> Mounted on P.C.B. with 3mm  $^{\star}$  3mm copper pad areas.



## **Curve Characteristics**

Fig. 1 - Forward Current Derating Curve 2.4 2.0 Average Forward Current (A) 1.6 1.2 0.8 0.4 Resistive or Inductive Load 0.0 25 75 100 0 50 125 150 Lead Temperature (°C)

Fig. 3 - Typical Forward Characteristics

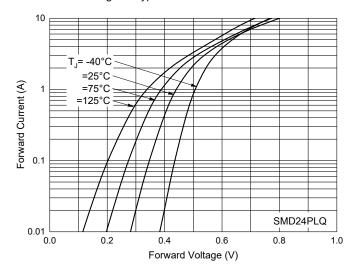


Fig. 5 - Typical Forward Characteristics

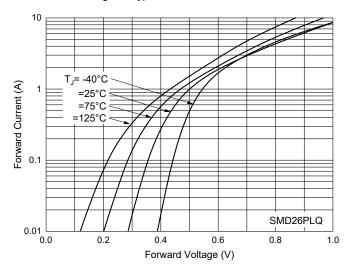


Fig. 4 - Typical Reverse Leakage Characteristics

Number of Cycles at 60 Hz

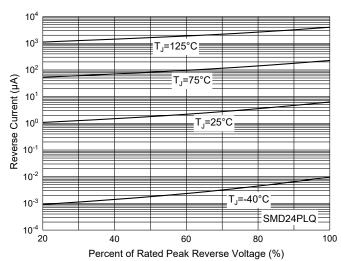
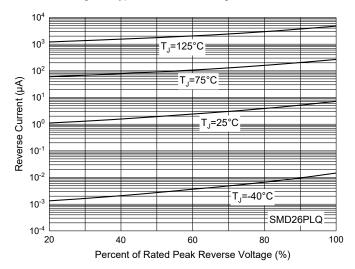
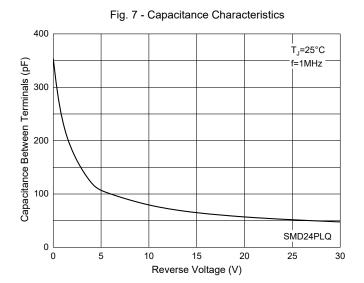


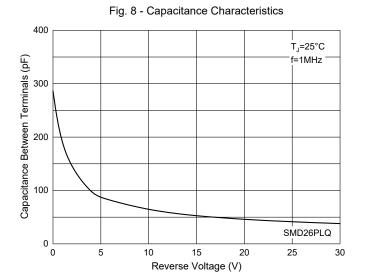
Fig. 6 - Typical Reverse Leakage Characteristics





# **Curve Characteristics**





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# **Ordering Information**

Device	Packing	
Part Number-TP	Tape&Reel:2.5Kpcs/Reel	

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