

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)

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value		Unit
		SMD210PLQ	SMD220PLQ	
Peak Repetitive Reverse Voltage	V_{RRM}	100	200	V
Working Peak Reverse Voltage	V_{RWM}			
DC Blocking Voltage	V_R			
RMS Reverse Voltage	V_{RMS}	70	140	V
Average Rectified Forward Current @ $T_L=110^\circ\text{C}$	$I_{F(AV)}$	2		A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	50		A
Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$	I^2t	10.375		A ² s

Marking code

Part Number	Marking code
SMD210PLQ	M10
SMD220PLQ	M20

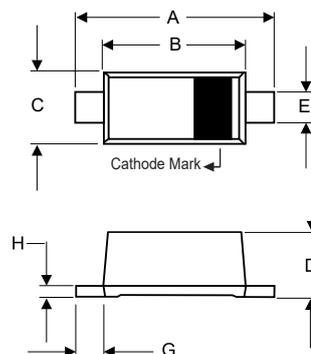
Internal Structure

Pin	Description	Simplified outline	Graphic symbol
1	cathode	<p>XXXX = Marking code YYWW = Date Code</p>	
2	anode		

- 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.

2 Amp Surface Mount Schottky Rectifier 100 to 200 Volts

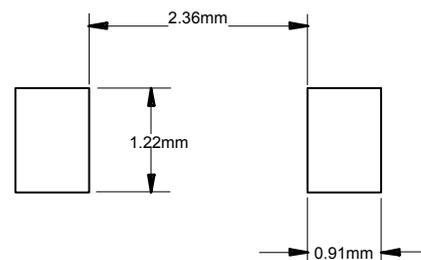
SOD-123FL



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.130	0.152	3.30	3.85	
B	0.100	0.122	2.55	3.10	
C	0.055	0.075	1.40	1.90	
D	0.035	0.053	0.90	1.35	
E	0.020	0.041	0.50	1.05	
G	0.010	----	0.25	----	
H	----	0.010	----	0.25	

SUGGESTED SOLDER PAD LAYOUT



Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range		-55		175	°C
T_{stg}	Storage Temperature Range		-55		175	°C
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		35		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		85		°C/W

Note:

1. Mounted on P.C.B. with 3mm*3mm copper pad areas.

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage						
SMD210PLQ	V_F	$I_F=2A; T_J=25^{\circ}C$ $I_F=2A; T_J=125^{\circ}C$		0.77 0.63	0.80 0.70	V
SMD220PLQ		$I_F=2A; T_J=25^{\circ}C$ $I_F=2A; T_J=125^{\circ}C$		0.82 0.68	0.90 0.75	
Reverse Current						
SMD210PLQ	I_R	at Rated $V_R; T_J=25^{\circ}C$ at Rated $V_R; T_J=125^{\circ}C$			5 150	uA
SMD220PLQ		at Rated $V_R; T_J=25^{\circ}C$ at Rated $V_R; T_J=125^{\circ}C$			5 150	
Junction Capacitance						
SMD210PLQ	C_J	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		62		pF
SMD220PLQ				40		

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

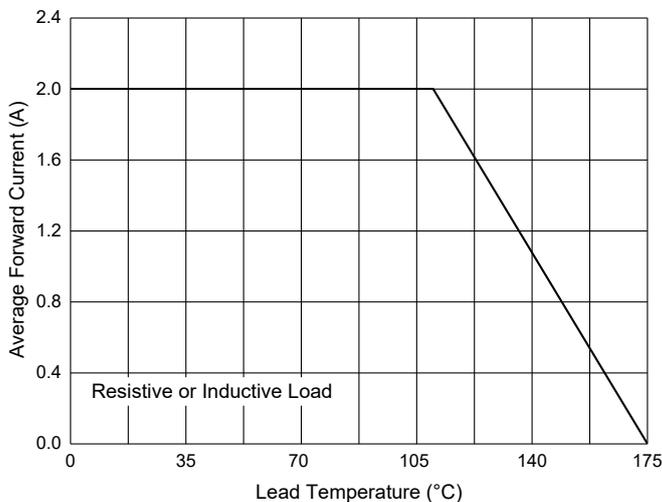


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

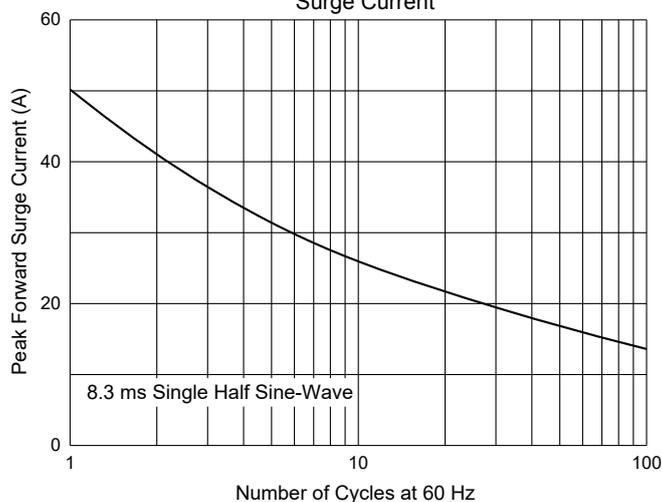


Fig. 3 - Typical Forward Characteristics

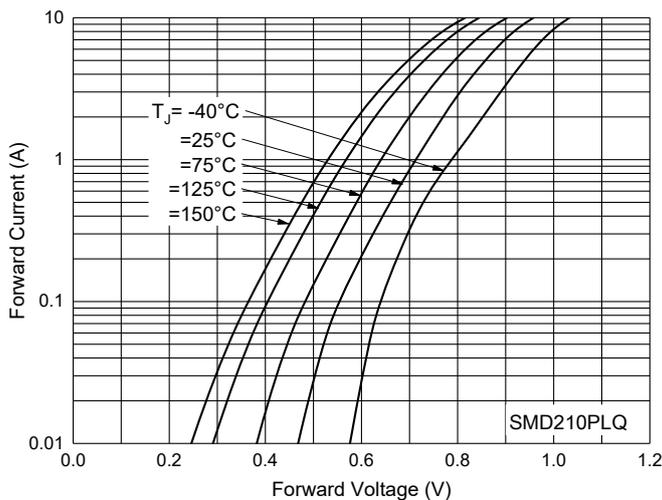


Fig. 4 - Typical Reverse Leakage Characteristics

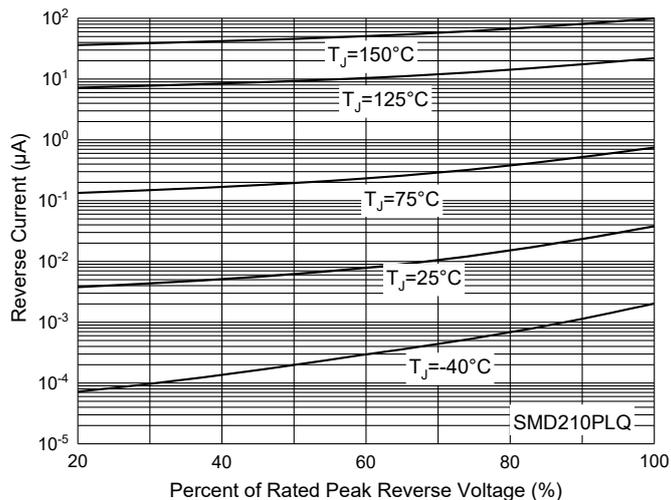


Fig. 5 - Typical Forward Characteristics

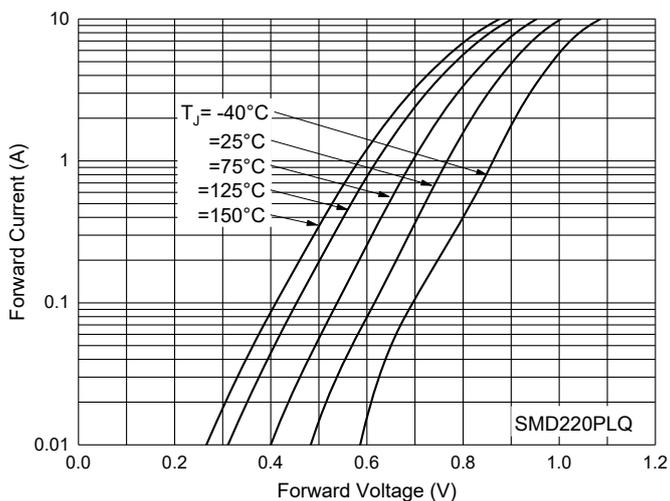
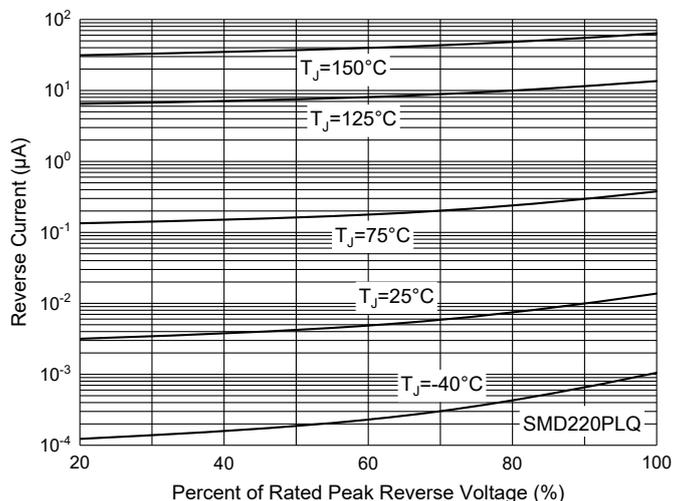


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Capacitance Characteristics

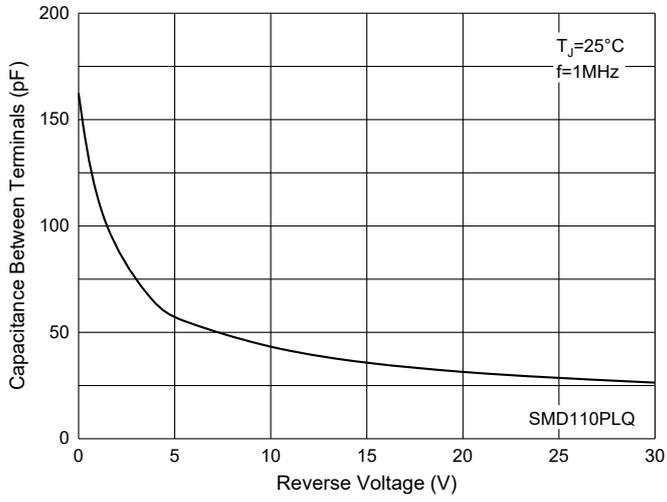
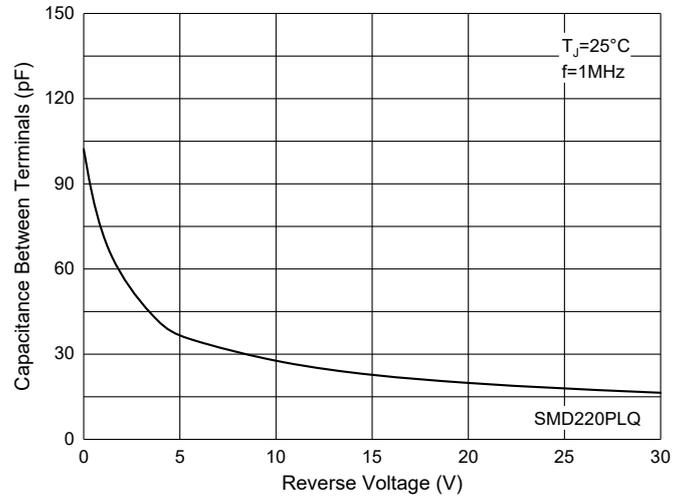


Fig. 8 - Capacitance Characteristics



Ordering Information

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

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