M·C·C

Micro Commercial Components

RoHS COMPLIANT

Micro Commercial Components
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SS12-L THRU SS110-L

1 Amp Schottky Rectifier 20 to 100 Volts

Features

- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- Low Forward Voltage
- Guard Ring Protection
- High Current Capability
- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 28°C/W Junction To Lead
  55°C/W Junction To Case
  88°C/W Junction To Ambient

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SS12-L	SS12	20V	14V	20V
SS13-L	SS13	30V	21V	30V
SS14-L	SS14	40V	28V	40V
SS15-L	SS15	50V	35V	50V
SS16-L	SS16	60V	42V	60V
SS18-L	SS18	80V	56V	80V
SS110-L	SS110	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	TL(Fig.1)
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage SS12-L~SS14-L SS15-L~SS16-L SS18-L~SS110-L	V_F	0.50V 0.70V 0.85V	I_{FM} = 1.0A; T_J = 25°C *
Maximum DC Reverse Current At Rated DC Blocking Voltage SS12-L~SS16-L SS18-L~SS110-L SS12-L~SS14-L SS15-L~SS110-L	I_R	0.5mA 0.1mA 10mA 5.0mA	T_A = 25°C T_A = 25°C T_A = 100°C T_A = 100°C
Typical Junction Capacitance SS12-L~SS14-L SS15-L~SS16-L SS18-L~SS110-L	C_J	52pF 45pF 35pF	Measured at 1.0MHz, V_R=4.0V
Junction Temperature SS12-L~SS14-L SS15-L~SS110-L	T_J	-55~+125°C -55~+150°C	

*Pulse test: Pulse width 300 µsec, Duty cycle 2%
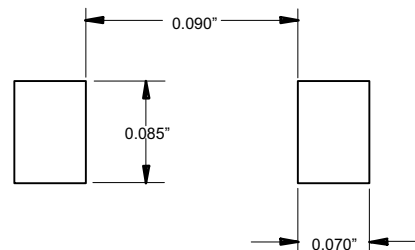
Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

DO-214AC (SMA) (LEAD FRAME)
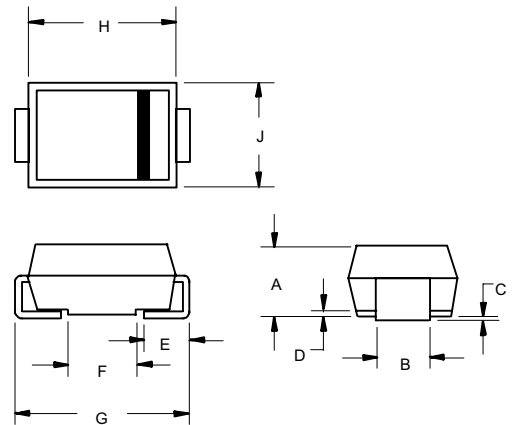
DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.079	.096	2.00	2.44	
B	.050	.064	1.27	1.63	
C	.002	.008	.05	.20	
D	---	.02	---	.51	
E	.030	.060	.76	1.52	
F	.065	.091	1.65	2.32	
G	.189	.220	4.80	5.59	
H	.157	.181	4.00	4.60	
J	.090	.115	2.25	2.92	

SUGGESTED SOLDER PAD LAYOUT

0.090"
0.085"
0.070"

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SS12-L thru SS110-L

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FIG.1: FORWARD CURRENT DERATING CURVE

IO(A) vs TL(℃)

- SS12-SS14-L
- SS15-SS110-L

Resistive or Inductive Load
P.C.B. Mounted on 0.2"×0.2"
(5.0mm×5.0mm)Copper Pad Areas
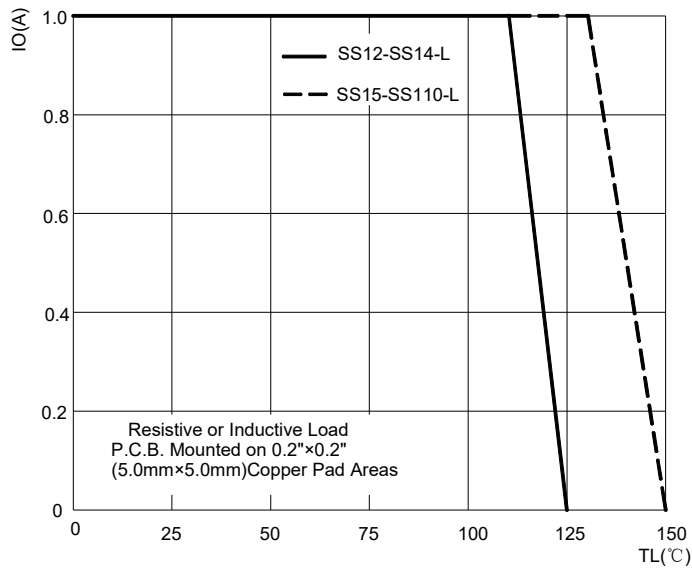
FIG2:Surge Forward Current Capadility

IFSM(A) vs Number of Cycles
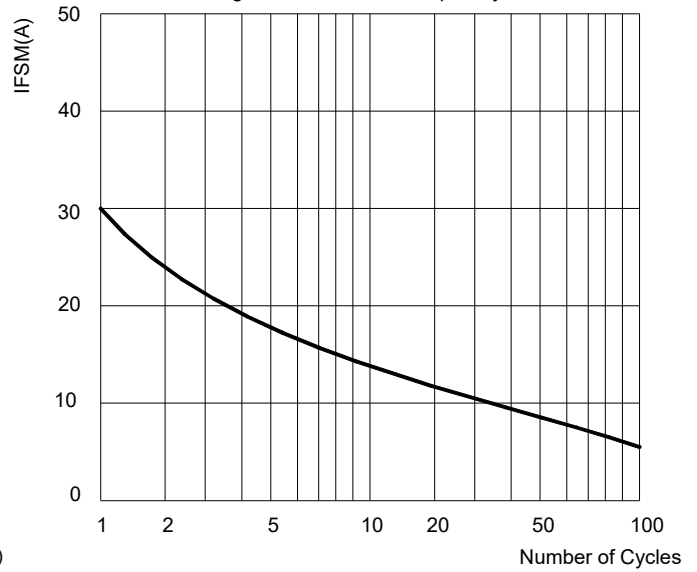
FIG.3: TYPICAL FORWARD CHARACTERISTICS

IF(A) vs VF(V)

TJ=25℃
Pulse width=300us
2% Duty Cycle

- SS12-SS14-L
- SS15-SS16-L
- SS18-SS110L
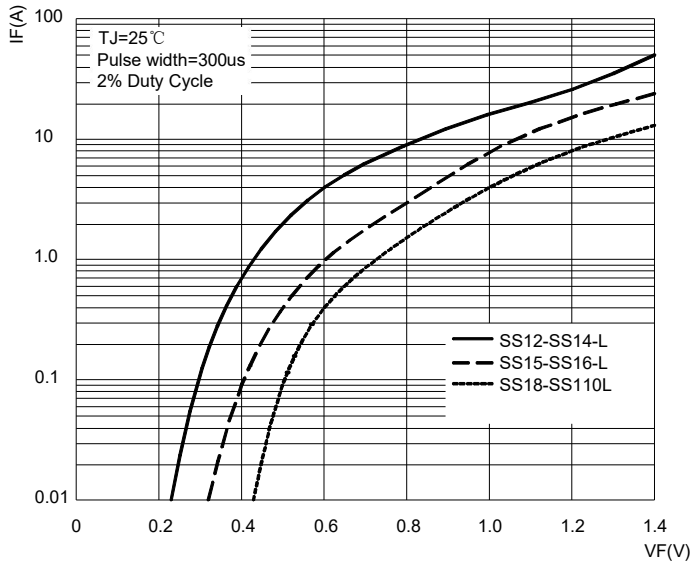
FIG.4：TYPICAL REVERSE CHARACTERISTICS

IR(mA) vs Voltage(%)

- SS12-SS14-L
- SS15-SS110-L

Tj=125℃
Tj=75℃
Tj=25℃
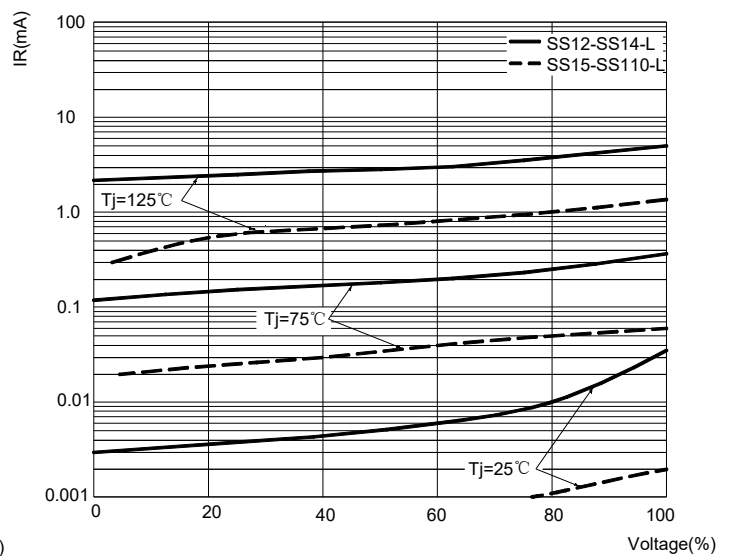
Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 5Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

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