M·C·C
Micro Commercial Components

RoHS COMPLIANT

SS12E THRU SS110E

1 Amp Schottky Rectifier 20 to 100 Volts

Features

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

Maximum Ratings

- Operating Junction Temperature: -55°C to +125°C (SS12E~SS14E)
  -55°C to +150°C(SS15E~SS110E)
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 28°C/W Junction To Lead
  90°C/W Junction To Ambient

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SS12E	SS12	20V	14V	20V
SS13E	SS13	30V	21V	30V
SS14E	SS14	40V	28V	40V
SS15E	SS15	50V	35V	50V
SS16E	SS16	60V	42V	60V
SS18E	SS18	80V	56V	80V
SS110E	SS110	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	T_L = 100°C
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F		I_{FM} = 1.0A; T_J = 25°C*
SS12E~14E		.60V	
SS15E~16E		.70V	
SS18E-110E		.85V	
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	0.5mA 20mA	T_A = 25°C T_A = 100°C
Typical Junction Capacitance SS12E - SS16E SS18E-SS110E	C_J	110pF 30pF	Measured at 1.0MHz, V_R=4.0V

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

SMAE

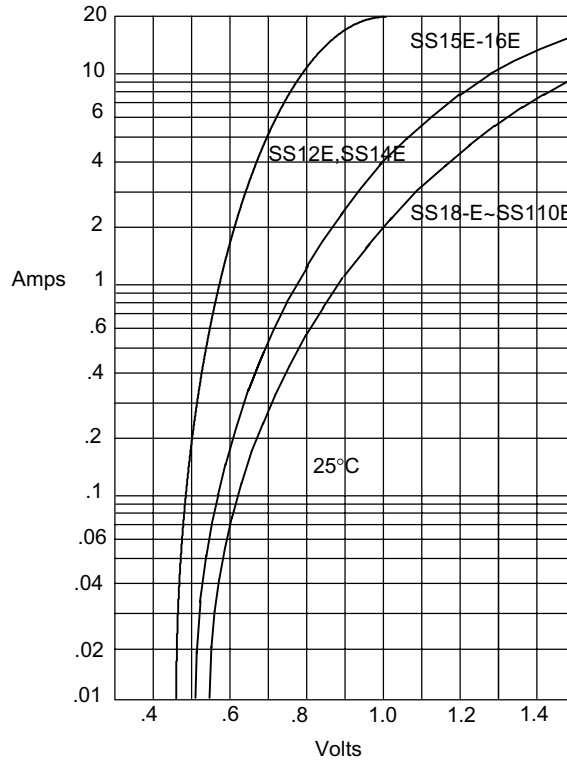Cathode Band
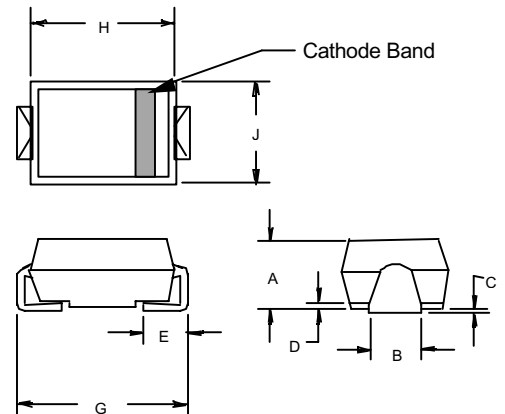
DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.079	.096	2.01	2.44	
B	.045	.071	1.15	1.80	
C	.002	.008	.05	.20	
D	---	.02	---	.51	
E	.030	.060	.76	1.52	
G	.189	.208	4.80	5.30	
H	.157	.180	4.00	4.57	
J	.090	.115	2.29	2.92	

SUGGESTED SOLDER PAD LAYOUT

0.090"
0.085"
0.070"

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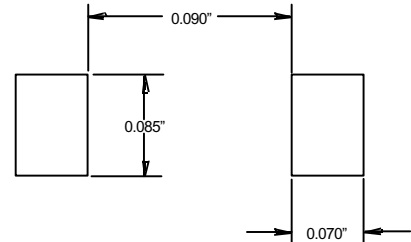
SS12E thru SS110E

Figure 1
Typical Forward Characteristics

SS15E-16E

SS12E,SS14E
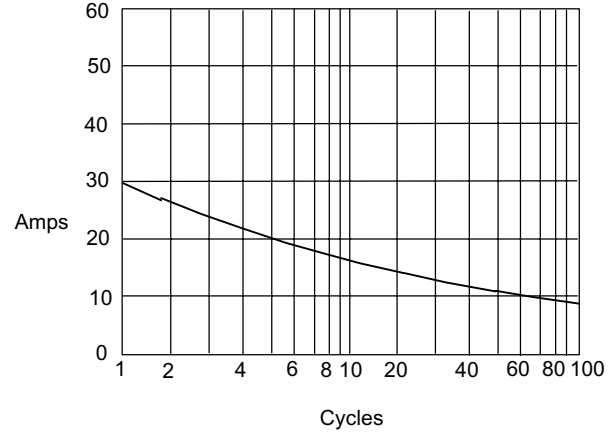
SS18-E~SS110E

25°C

Amps

Volts

Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve

SS15E - SS110E

SS12E - SS14E

Amps

Single Phase, Half Wave
60Hz Resistive or Inductive
Load

°C
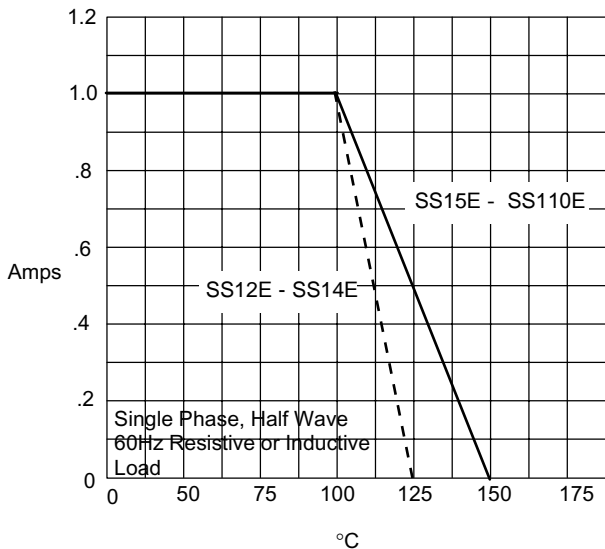
Average Forward Rectified Current - Amperes *versus*
Lead Temperature - °C

Figure 3
Peak Forward Surge Current

Amps

Cycles

Peak Forward Surge Current - Amperes *versus*
Number Of Cycles At 60Hz - Cycles

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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 6Kpcs/Reel

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

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