1.0Amp. Surface Mount Schottky Barrier Diodes

CSMASS1XAS Series

Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Glass passivated structure

Mechanical Data

- Case: Molded plastic SMA.
- Solderability : MIL-STD-202 method 208 guaranteed
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Color band denotes cathode end.
- Mounting position: Any.
- Weight: 0.064 gram

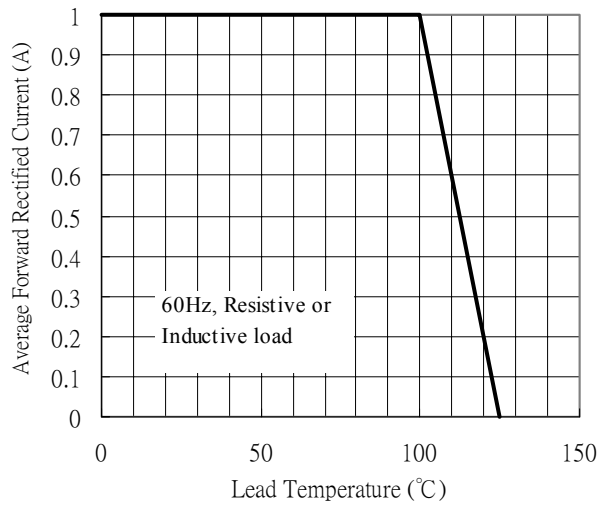
Maximum Ratings and Electrical Characteristics

(Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.)

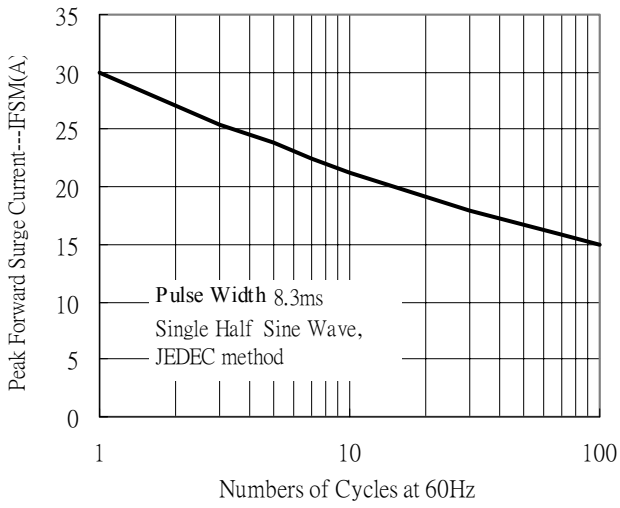
Parameter	Symbol	Type							Units
		CSMASS12	CSMASS13	CSMASS14	CSMASS15	CSMASS16	CSMASS18	CSMASS1B	
Repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	V_R	20	30	40	50	60	80	100	V
Maximum instantaneous forward voltage @ I_F=1A (Note 1)	V_F	0.55			0.75		0.82		V
Maximum average forward rectified current @ T_L=100℃	I_O	1							A
Peak forward surge current @8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							A
Maximum DC reverse current at rated DC blocking Voltage T_J=25℃ T_J=100℃	I_R	0.5 10							mA
Typical thermal resistance, Junction to lead	$R_{th, JL}$	20							℃/W
Typical diode junction capacitance @ f=1MHz and applied 4V reverse voltage	C_J	110							pF
Storage temperature	Tstg	-55 ~ +150							℃
Operating temperature	T_J	-55 ~ +125							℃

Characteristic Curves

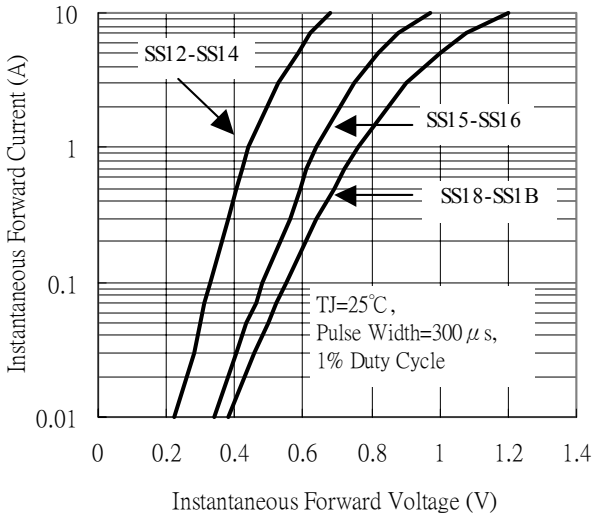
Forward Current Derating Curve



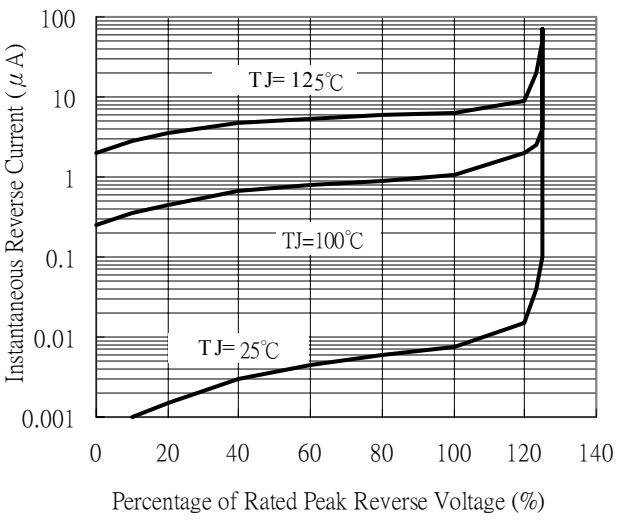
Maximum Non-Repetitive Peak Forward Surge Current



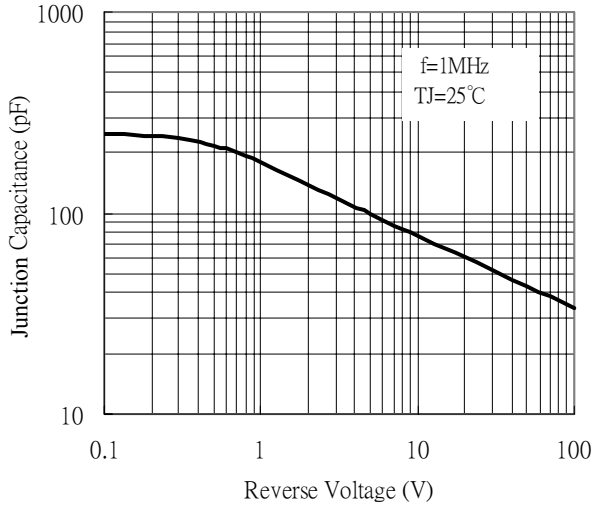
Typical Instantaneous Forward Characteristics



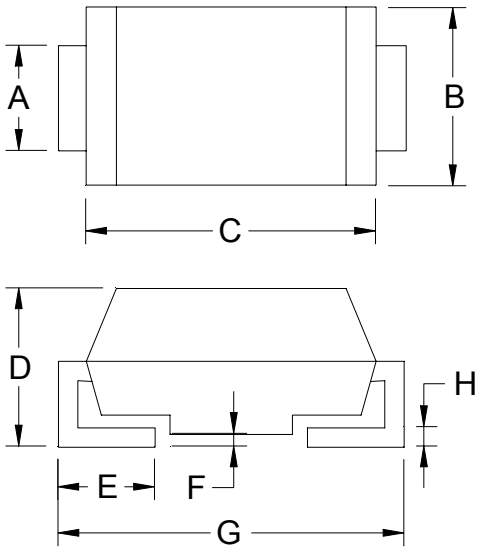
Typical Reverse Characteristics



Typical Junction Capacitance



SMA-1 Dimension



Marking :

Device	CSMA SS12	CSMA SS13	CSMA SS14	CSMA SS15
Code	SS12	SS13	SS14	SS15

Device	CSMA SS16	CSMA SS18	CSMA SS1B	
Code	SS16	SS18	SS1B	

2-Lead SMA-1 Plastic
Surface Mounted Package
CYStek Package Code: AS

*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.055	0.062	1.40	1.60	E	0.030	0.060	0.76	1.52
B	0.098	0.114	2.50	2.90	F	0.002	0.008	0.051	0.203
C	0.157	0.181	4.00	4.60	G	0.188	0.208	4.80	5.28
D	0.078	0.096	2.00	2.44	H	0.006	0.012	0.152	0.305

Notes : 1.Controlling dimension : millimeters.
2.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
3.If there is any question with packing specification or packing method, please contact your local CYStek sales office.

Material :

- Lead : 42 Alloy ; solder plating
- Mold Compound : Epoxy resin family, flammability solid burning class:UL94V-0