2.0Amp. Glass Passivated Diodes

CSMA20XSA Series

Features

- For surface mounted applications.
- Plastic material used carries Underwriters Laboratory Flammability Classification 94V-0
- Low leakage current
- High surge capability
- High temperature soldering: 250°C/10 seconds at terminals
- Exceeds environmental standards of MIL-S-19500/228

Mechanical Data

- Case: Molded plastic, SMA/JEDEC DO-214AC
- Terminals: Solder plated, solderable per MIL-STD-750 method 2026
- Polarity: Indicated by cathode band.
- Packaging: 12mm tape per EIA STD RS-481.
- Weight: 0.064 gram, 0.002 ounce

Maximum Ratings and Electrical Characteristics

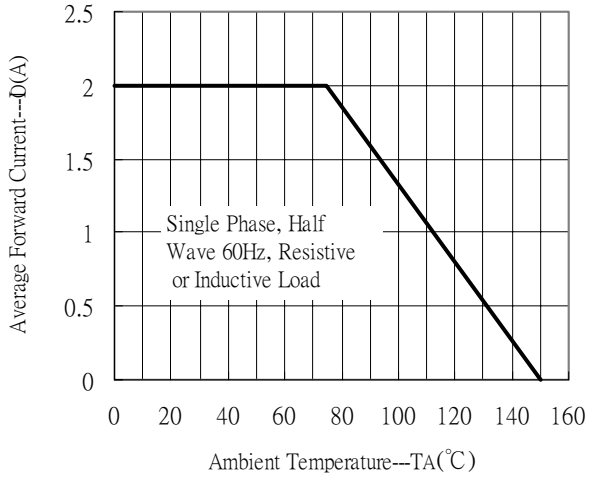
(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Spec							Units
Type		CSMA 201	CSMA 202	CSMA 203	CSMA 204	CSMA 205	CSMA 206	CSMA 207	
Repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_R	50	100	200	400	600	800	1000	V
Maximum instantaneous forward voltage, I_F=2A (Note 1)	V_F	1.1	1.1	1.1	1.1	1.1	1.1	1.1	V
Average forward rectified current	I_O	2							A
Peak forward surge current @8.3ms single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	50							A
Maximum DC reverse current $V_R=V_{RRM}, T_A$=25℃ (Note 1) $V_R=V_{RRM}, T_A$=125℃ (Note 1)	I_R	5 125							μA μA
Maximum thermal resistance, Junction to ambient	$R_{th,JA}$	53 (typ)							℃/W
Diode junction capacitance (Note 2)	C_J	30(typ)							pF
Storage temperature	Tstg	-55 ~ +150							℃
Operating temperature	T_J	-55 ~ +150							℃

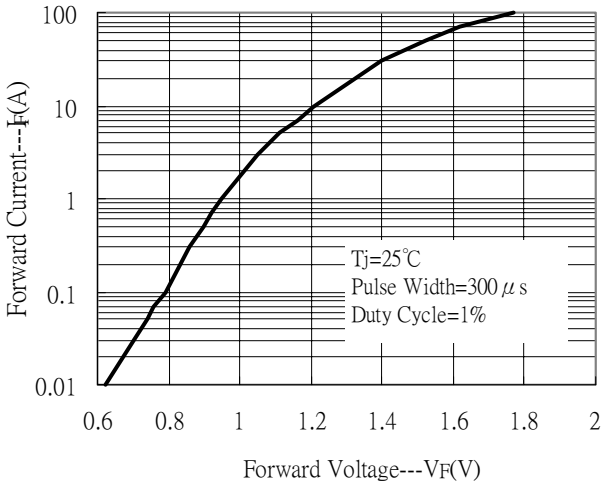
Notes : 1. Pulse test, pulse width=300 μ sec, 2% duty cycle
2 . f=1MHz and applied 4.0V_{DC} reverse voltage.

Characteristic Curves

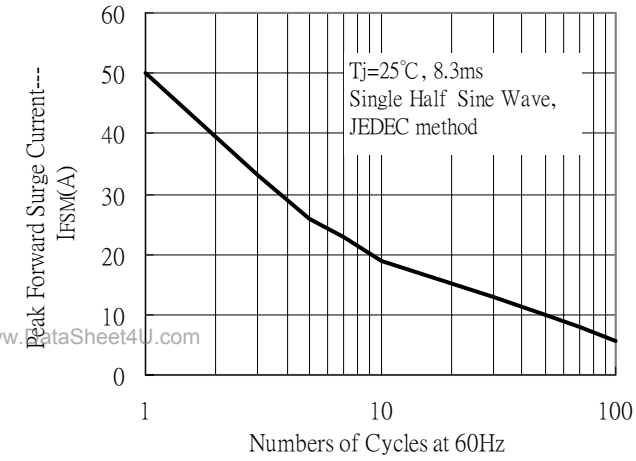
Forward Current Derating Curve



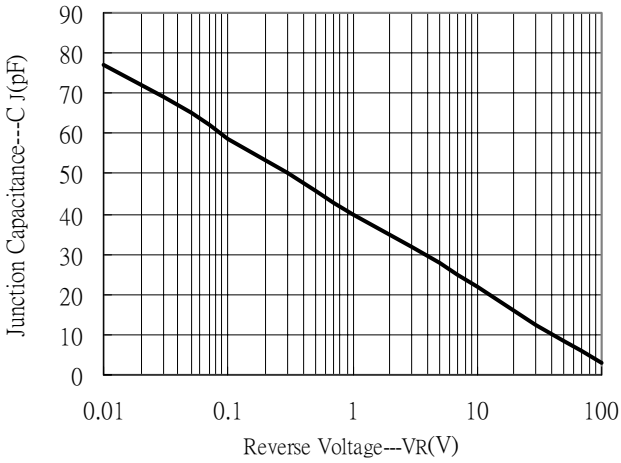
Forward Current vs Forward Voltage



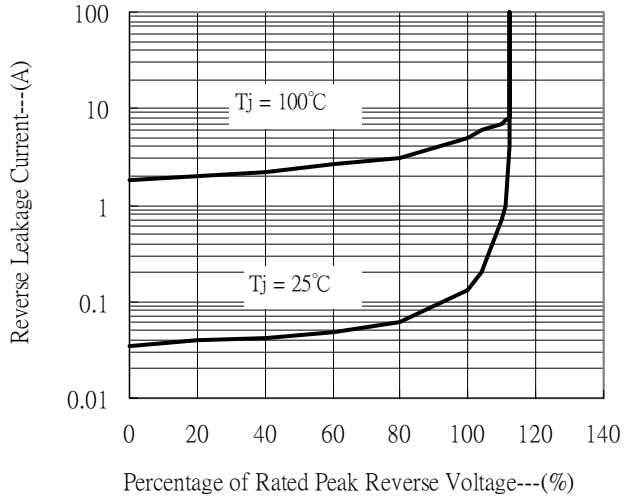
Maximum Non-Repetitive Forward
Surge Current



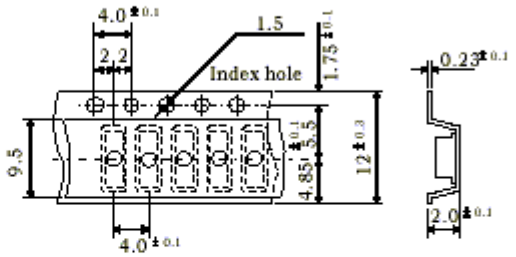
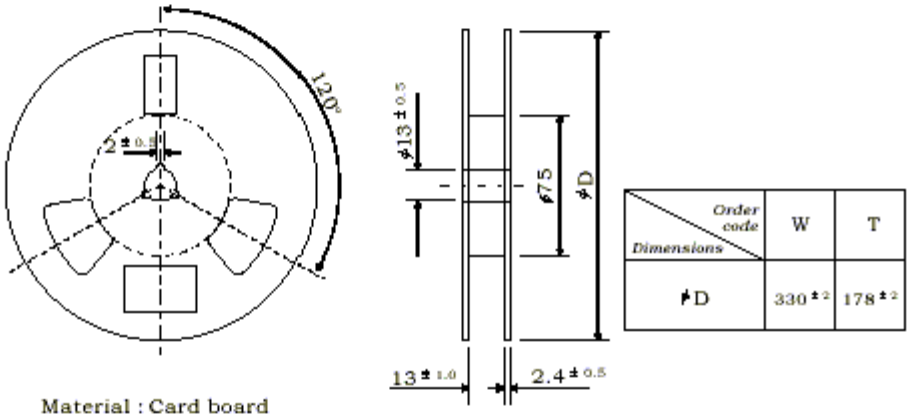
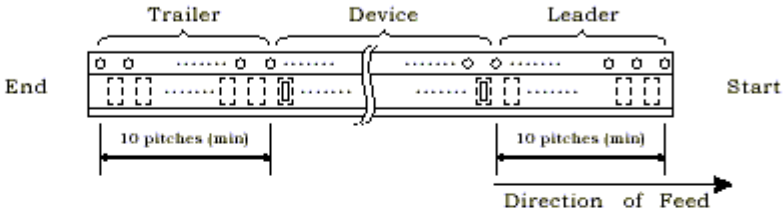
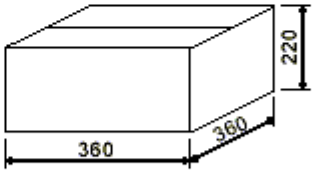
Junction Capacitance vs Reverse Voltage



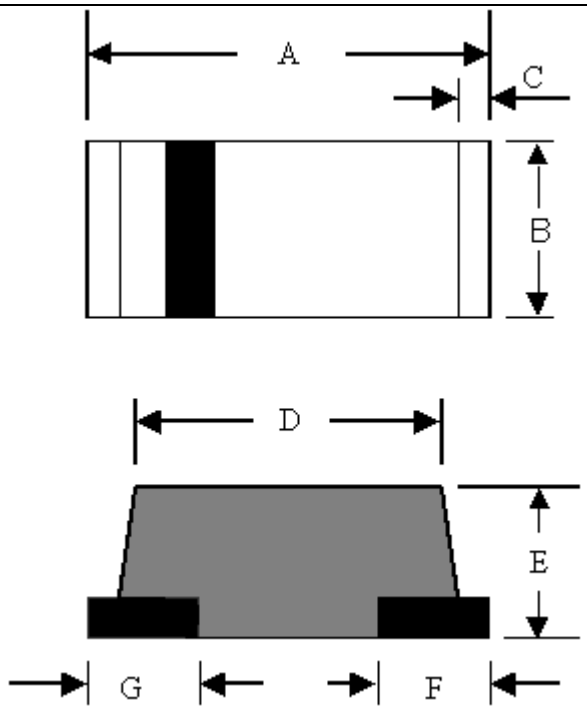
Reverse Leakage Current vs Reverse Voltage



Packing Information

Case No.		SMA
Taping	Dimensions	 Material : Plastics
	Quantity	Standard capacity : 7,500pcs / reel
Reel	Dimensions	 Material : Card board Order code / Dimensions: W, T; ϕD: 330±2, 178±2
	Leader and Trailer	
Standard Package	Dimensions	 Material : Corrugated card board
	Quantity	Standard capacity : 75,000pcs / carton (10 reels / carton)

SMA/DO-214AC Dimension



Marking Code:

Device	CSMA 201	CSMA 202	CSMA 203	CSMA 204
Code	A21	A22	A23	A24

Device	CSMA 205	CSMA 206	CSMA 207	
Code	A25	A26	A27	

SMA Plastic Surface
Mounted Package
CYStek Package Code: SA

*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.177	0.185	4.4	4.8	E	0.060	0.067	1.5	1.7
B	0.094	0.110	2.4	2.8	F	0.04(typ)		1.0(typ)	
C	0.012(typ)		0.3(typ)		G	0.04(typ)		1.0(typ)	
D	0.150	0.165	3.8	4.2	-	-	-	-	-

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