

SCD12H THRU SCD110H

FEATURES

- * Halogen-free type
- * Compliance to RoHS product
- * Lead less chip form, no lead damage
- * Low power loss, High efficiency
- * High current capability, low VF
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0

APPLICATION

- * Switching mode power supply applications
- * Portable equipment battery applications
- * High frequency rectification
- * DC / DC Converter
- * Telecommunication

MECHANICAL DATA

Case : Packed with FRP substrate and epoxy underfilled

Terminals : Pure Tin plated (Lead-Free),
solderable per MIL-STD-750, Method 2026.

Polarity : Laser Cathode band marking

Weight : 0.02 gram

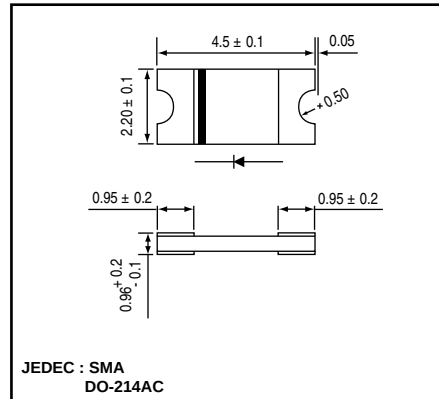
PACKING

- * 3,000 pieces per 7" (178mm ± 2mm) reel
- * 4 reels per box
- * 6 boxes per carton

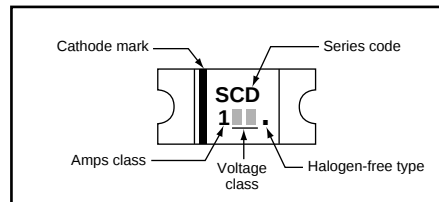
OUTLINE DIMENSIONS

Case : 2010

Unit : mm



MARKING



Absolute Maximum Ratings (Ta = 25 °C)

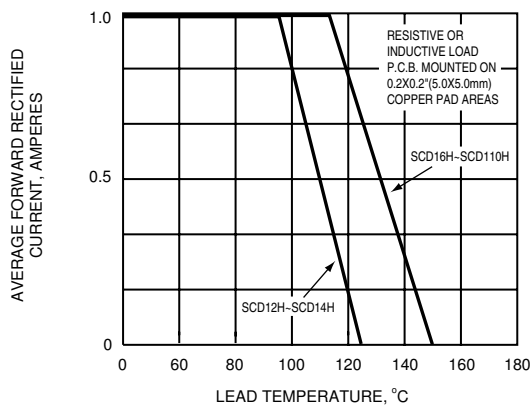
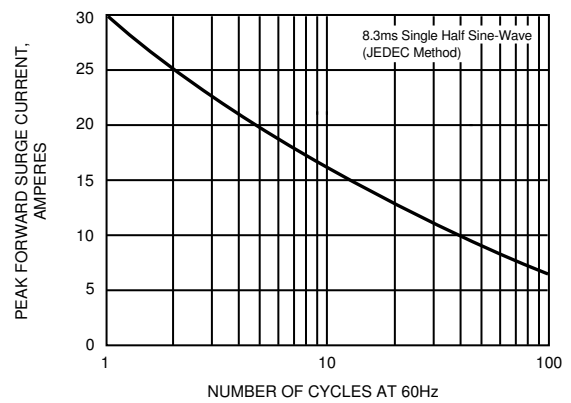
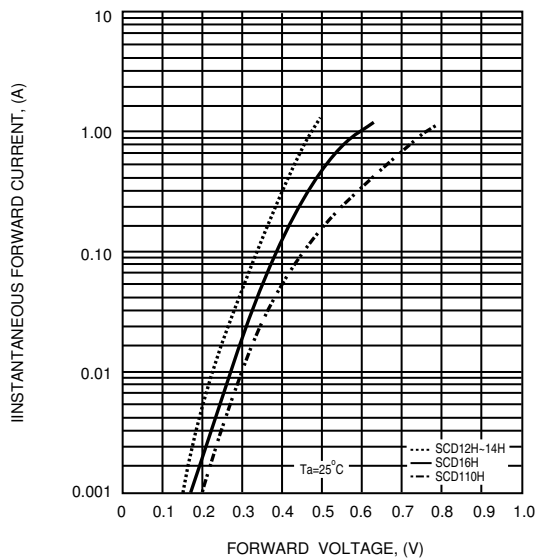
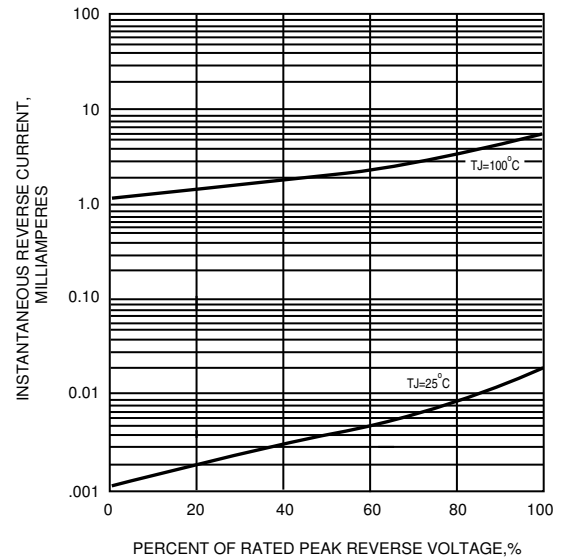
ITEM	Symbol	Conditions	Rating				Unit
			SCD12H	SCD14H	SCD16H	SCD110H	
Repetitive peak reverse voltage	VRRM		20	40	60	100	V
Average forward current	IF(AV)		1.0				A
Peak forward surge current	IFSM	8.3ms single half sine-wave	30				A
Operating junction temperature Range	Tj		-55 to +125		-55 to +150		°C
Storage temperature Range	TSTG		-55 to +150				°C

Electrical characteristics (Ta = 25 °C)

ITEM	Symbol	Conditions	Type	Min.	Typ.	Max.	Unit
Forward voltage (NOTE 1)	VF	IF = 0.1A	SCD12H	-	0.34	-	V
		IF = 0.5A	/	-	0.41	-	
		IF = 1.0A	SCD14H	-	0.47	0.50	
		IF = 0.1A	SCD16H	-	0.38	-	V
		IF = 0.5A		-	0.48	-	
		IF = 1.0A		-	0.60	0.70	
		IF = 0.1A	SCD110H	-	0.45	-	V
		IF = 0.5A		-	0.63	-	
		IF = 1.0A		-	0.76	0.85	
Repetitive peak reverse current	IRRM	VR = Max. VRRM , Ta = 25 °C		-	0.02	0.20	mA
Junction capacitance	Cj	VR = 4V, f = 1.0 MHz		-	110	-	pF
Thermal resistance	Rth(JA)	Junction to ambient (NOTE 2)		-	88	-	°C/W
	Rth(JL)	Junction to lead (NOTE 2)		-	28	-	°C/W

NOTES : (1) Pulse test width PW=300usec , 1% duty cycle.

(2) Mounted on P.C. board with 0.2 x 0.2"(5.0 x5.0mm) copper pad areas.

FIG.1 - FORWARD CURRENT DERATING CURVE

FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

FIG.4 - TYPICAL REVERSE CHARACTERISTICS

FIG.5 - TYPICAL JUNCTION CAPACITANCE
