ZOWIE

Schottky Barrier Diode

(20V~100V / 1.0A)

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

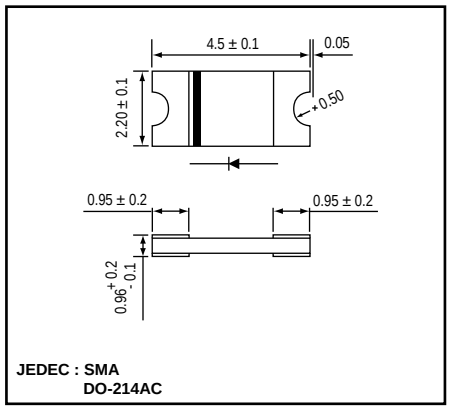
PACKING

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

OUTLINE DIMENSIONS

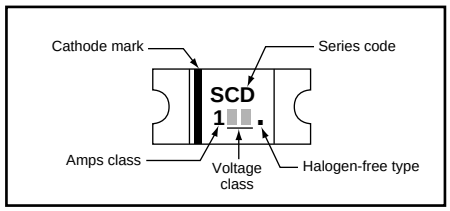
Case : 2010

Unit : mm



JEDEC : SMA
DO-214AC

MARKING



Absolute Maximum Ratings (Ta = 25 °C)

ITEM	Symbol	Conditions	Rating				Unit
			SCD12H	*SCD14H*	*SCD16H*	*SCD110H*	
Repetitive peak reverse voltage	V_{RRM}		20	40	60	100	V
Average forward current	$I_{F(AV)}$		1.0				A
Peak forward surge current	I_{FSM}	8.3ms single half sine-wave	30				A
Operating junction temperature Range	T_j		-55 to +125		-55 to +150		°C
Storage temperature Range	T_{STG}		-55 to +150				°C

Electrical characteristics (Ta = 25 °C)

ITEM	Symbol	Conditions	Type	Min.	Typ.	Max.	Unit
Forward voltage (NOTE 1)	V_F	I_F = 0.1A	***SCD12H*** / ***SCD14H***	-	0.34	-	V
		I_F = 0.5A		-	0.41	-	
		I_F = 1.0A		-	0.47	0.50	
		I_F = 0.1A	***SCD16H***	-	0.38	-	V
		I_F = 0.5A		-	0.48	-	
		I_F = 1.0A		-	0.60	0.70	
		I_F = 0.1A	***SCD110H***	-	0.45	-	V
		I_F = 0.5A		-	0.63	-	
		I_F = 1.0A		-	0.76	0.85	
Repetitive peak reverse current	I_{RRM}	V_R = Max. V_{RRM} , Ta = 25 °C		-	0.02	0.20	mA
Junction capacitance	C_j	V_R = 4V, f = 1.0 MHz		-	110	-	pF
Thermal resistance	$R_{th(JA)}$	Junction to ambient (NOTE 2)		-	88	-	°C/W
	$R_{th(JL)}$	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

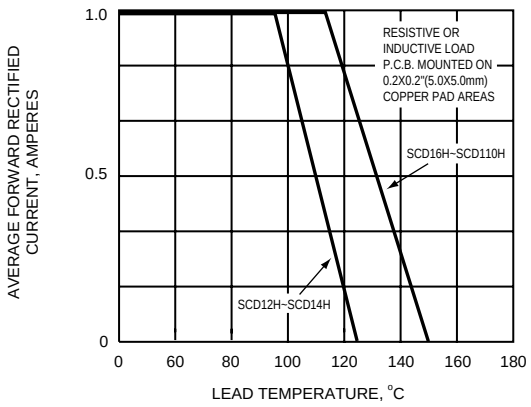


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

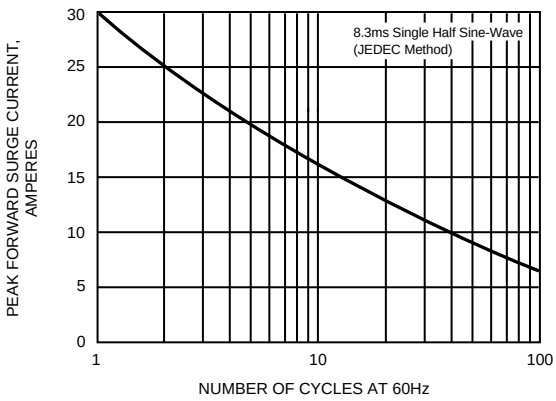


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

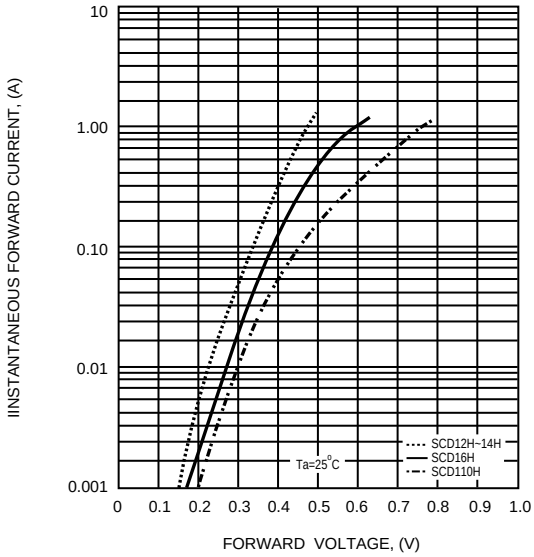


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

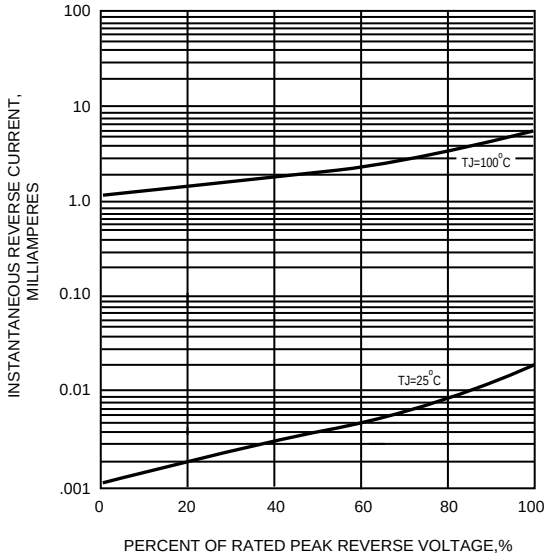


FIG.5 - TYPICAL JUNCTION CAPACITANCE

