

**Objective Specification**
**SCD13PH**
**● FEATURES**

- \* Halogen-free type
- \* Lead free product, compliance to RoHS
- \* Lead less chip form, no lead damage
- \* Lead-free solder joint, no wire bond & lead frame
- \* Low power loss, High efficiency
- \* High current capability
- \* Low forward voltage drop
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0

**● APPLICATION**

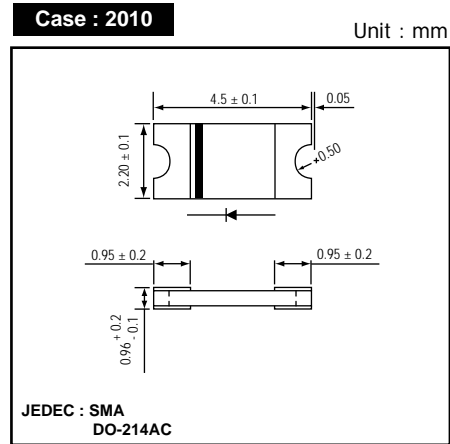
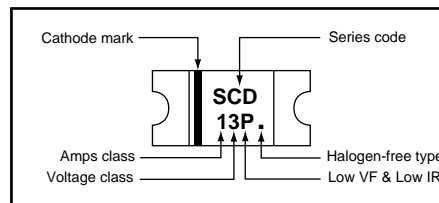
- \* Switching mode power supply applications
- \* Portable equipment battery applications
- \* High frequency rectification
- \* DC / DC Converter
- \* Telecommunication

**● 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**

**● MARKING**

**Absolute Maximum Ratings (Ta = 25 °C)**

ITEM	Symbol	Conditions	Rating	Unit
Repetitive peak reverse voltage	VRRM		30	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		150	°C
Storage temperature Range	TSTG		-55 to +150	°C

**Electrical characteristics (Ta = 25 °C)**

ITEM	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage (NOTE 1)	VF	IF = 1.0A	-	0.37	0.39	V
Repetitive peak reverse current	IRRM	VR = Max. VRRM , Ta = 25 °C	-	0.20	0.50	mA
Junction capacitance	Cj	VR = 4V, f = 1.0 MHz	-	115	-	pF
Thermal resistance	Rth(JA)	Junction to ambient (NOTE 2)	-	55	-	°C/W
	Rth(JL)	Junction to lead (NOTE 2)	-	17	-	°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.  
 (3) The objective specification for product development.

FIG.1 - FORWARD CURRENT DERATING CURVE

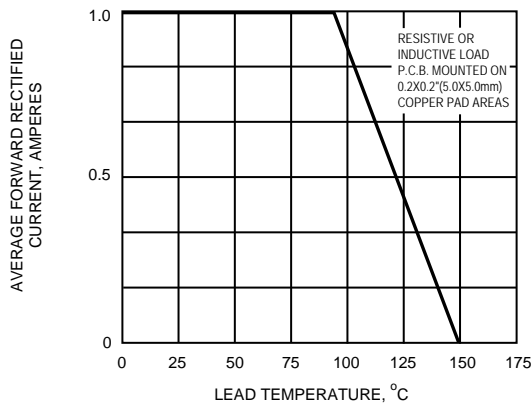


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

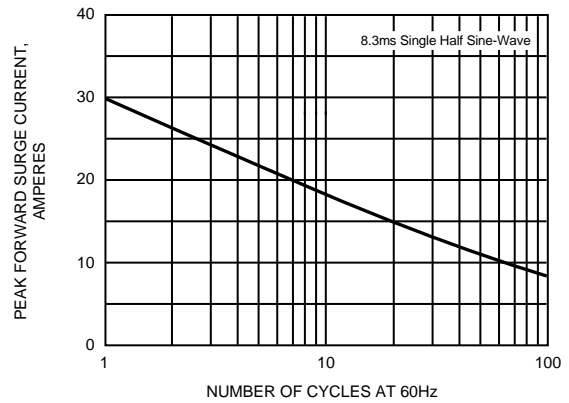


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

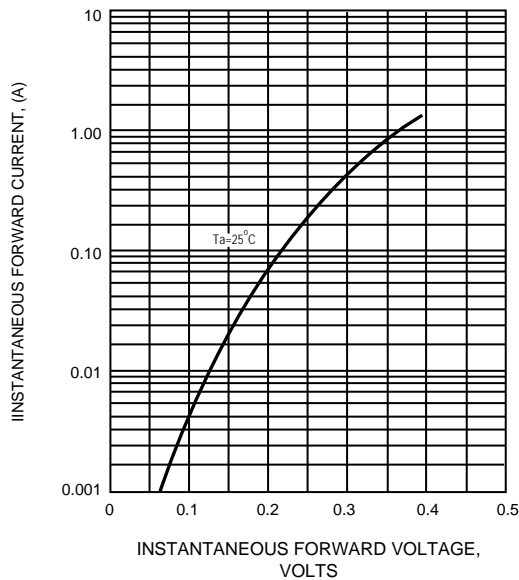


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

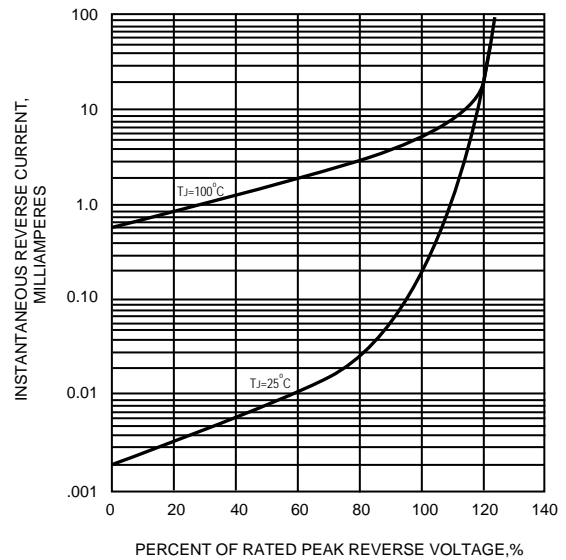


FIG.5 - TYPICAL JUNCTION CAPACITANCE

