WCSCD52H THRU WCSCD510H

FEATURES

* Compliance to RoHS product
* 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 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 : 0.093 gram

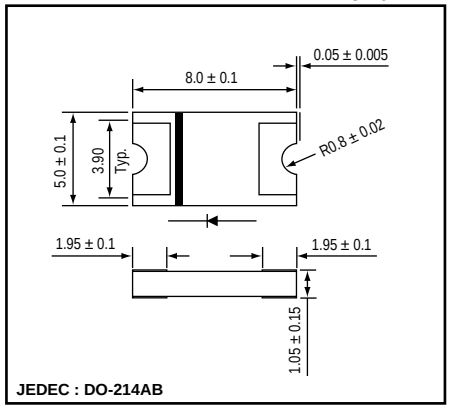
PACKING

* **3,000 pieces per 13" (330mm ± 2mm) reel**
* **1 reels per box**
* **5 boxes per carton**

OUTLINE DIMENSIONS

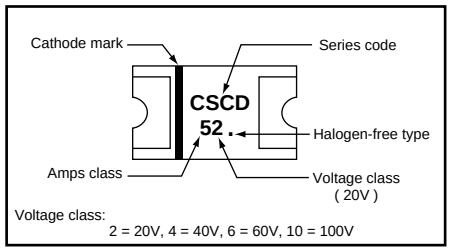
Case : 3220

Unit : mm



JEDEC : DO-214AB

MARKING



Absolute Maximum Ratings (Ta = 25 °C)

ITEM	Symbol	Conditions	WCSCD				Unit
			52H	54H	56H	510H	
Repetitive peak reverse voltage	V_{RRM}		20	40	60	100	V
Average forward current (SEE FIG.1)	$I_{F(AV)}$		5.0				A
Peak forward surge current	I_{FSM}	8.3ms single half sine-wave	130				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 = 1 A	WCSCD52H / WCSCD54H	-	0.38	-	V
		I_F = 3 A		-	0.45	-	
		I_F = 5 A		-	0.52	0.55	
		I_F = 1 A	WCSCD56H	-	0.42	-	V
		I_F = 3 A		-	0.52	-	
		I_F = 5 A		-	0.65	0.70	
		I_F = 1 A	WCSCD510H	-	0.53	-	V
		I_F = 3 A		-	0.69	-	
		I_F = 5 A		-	0.79	0.85	
Repetitive peak reverse current	I_{RRM}	V_R = Max. V_{RRM} , Ta = 25 °C		-	0.045	0.50	mA
Junction capacitance	C_j	V_R = 4V, f = 1.0 MHz		-	180	-	pF
Thermal resistance	$R_{th(JA)}$	Junction to ambient (NOTE 2)		-	55	-	°C/W
	$R_{th(JL)}$	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) Preliminary draft.

FIG.1 - FORWARD CURRENT DERATING CURVE

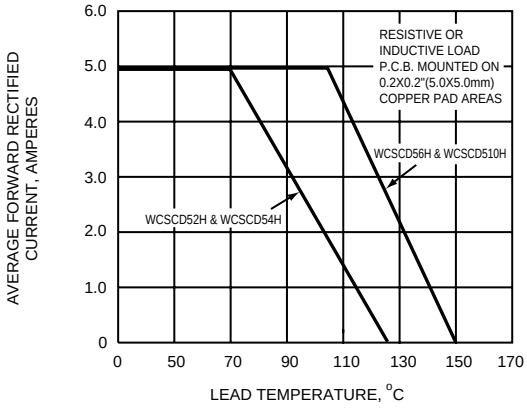


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

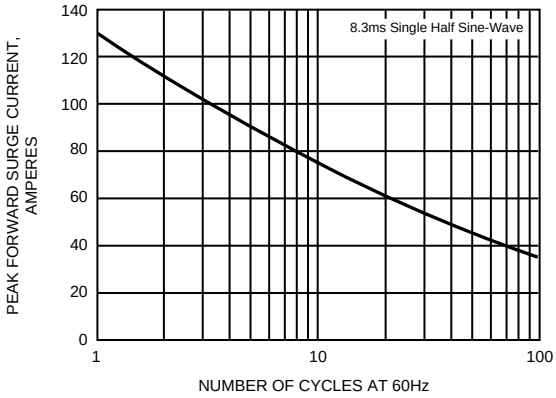


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

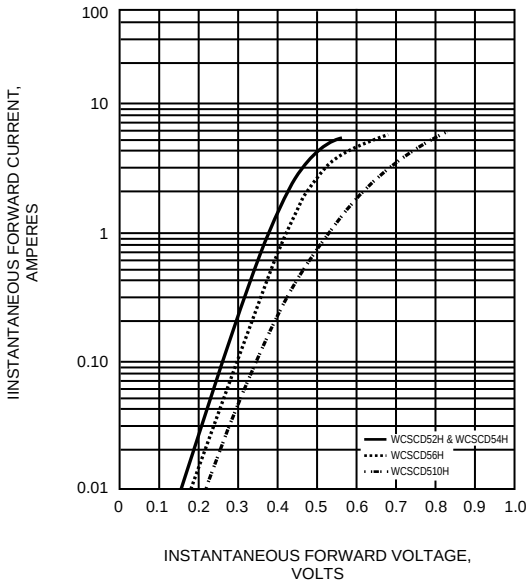


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

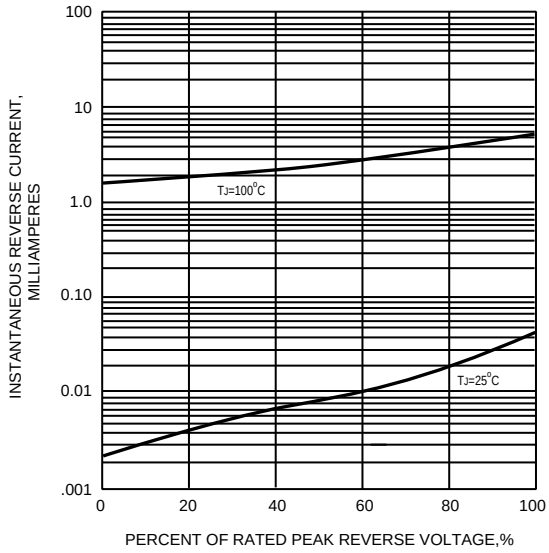


FIG.5 - TYPICAL JUNCTION CAPACITANCE

