

MSCD012H THRU MSCD014H

● **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 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

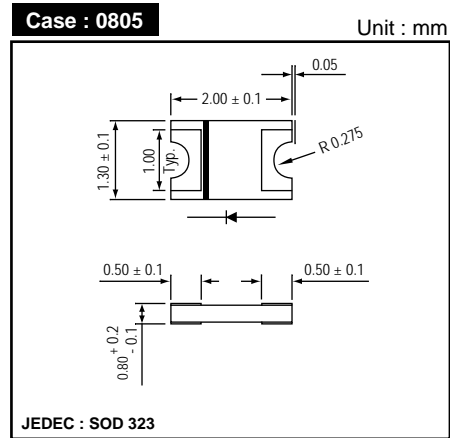
● **MECHANICAL DATA**

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 : 0.005 gram

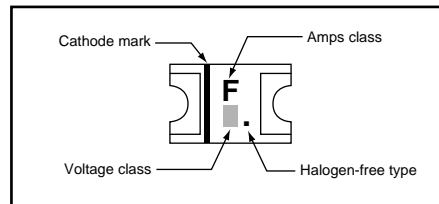
● **PACKING**

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

● **OUTLINE DIMENSIONS**



● **MARKING**

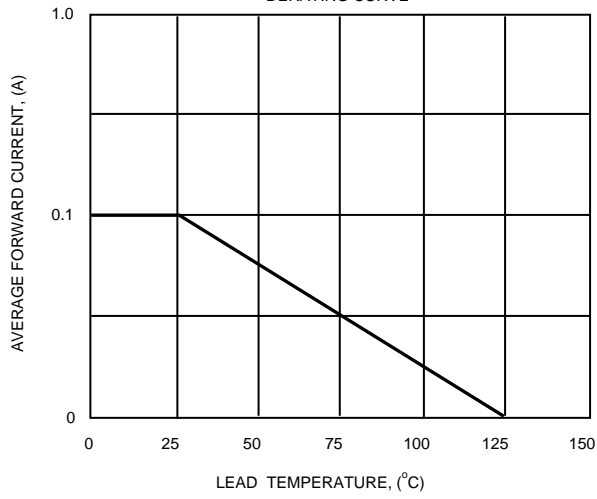
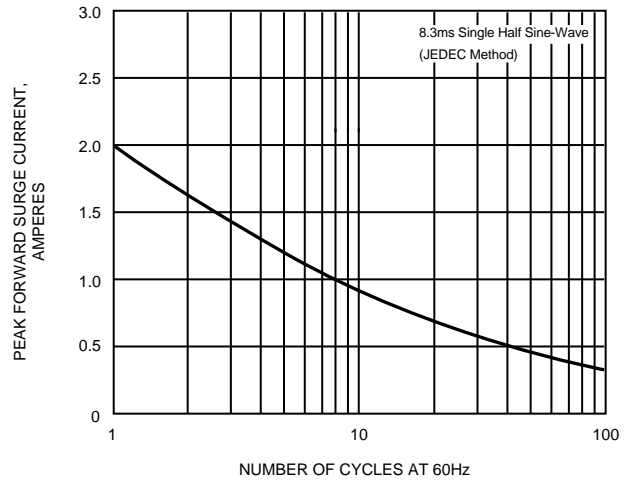
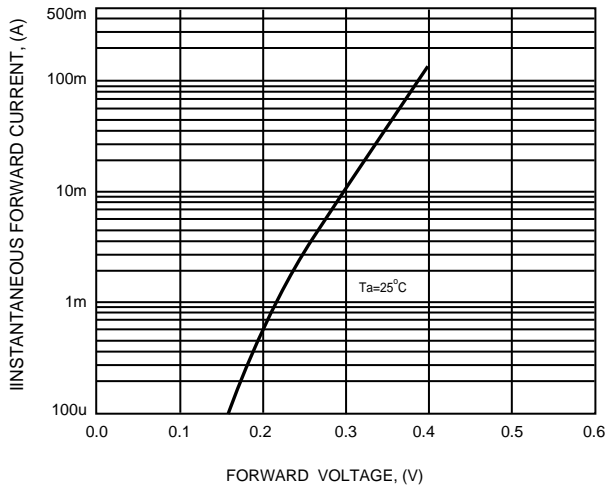
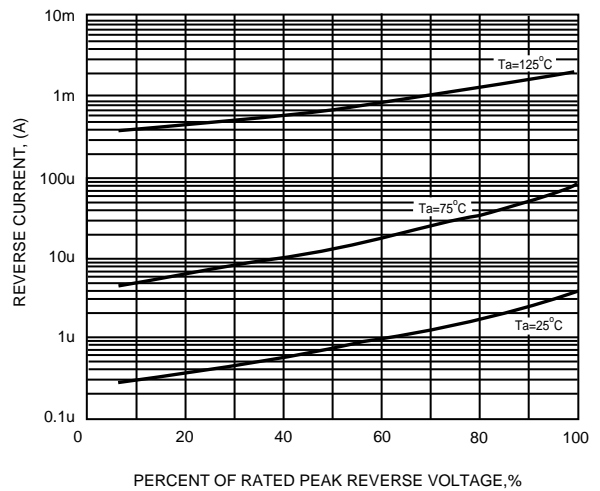


Absolute Maximum Ratings (Ta = 25 °C)

ITEM	Symbol	Conditions	Rating		Unit
			MSCD012H	MSCD014H	
Repetitive peak reverse voltage	VRRM		20	40	V
Average forward current	IF(AV)		100		mA
Peak forward surge current	IFSM	8.3ms single half sine-wave	2.0		A
junction temperature	Tj		125		°C
Operating temperature range	Topr		-40 to +125		°C
Storage temperature range	TSTG		- 40 to +125		°C

Electrical characteristics (Ta = 25 °C)

ITEM	Symbol	Conditions	Type	Min.	Typ.	Max.	Unit
Forward voltage	VF	IF = 1mA IF = 10mA IF = 100mA	MSCD012H	-	0.22	-	V
				-	0.30	-	
				-	0.38	0.45	
		MSCD014H	-	0.25	-		
			-	0.30	-		
			-	0.40	0.50		
Repetitive peak reverse current	IRRM	VR = Max. VRRM , Ta = 25 °C	-	4	30	uA	
Junction capacitance	Cj	VR = 4V, f = 1.0 MHz	-	18	-	pF	
Thermal resistance	Rth(JA)	Junction to ambient	-	160	-	°C/W	
	Rth(JL)	Junction to lead	-	110	-	°C/W	

FIG. 1 - TYPICAL 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
