

MSCD012H THRU MSCD014H

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.

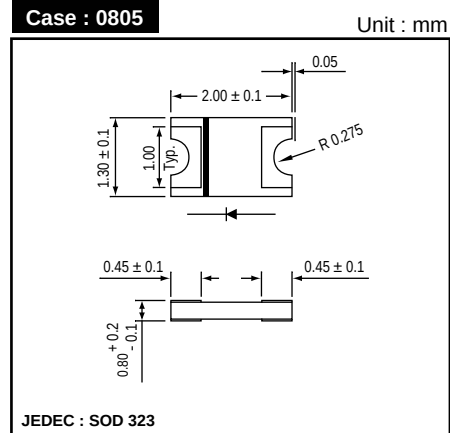
Polarity : Laser Cathode band marking

Weight : 0.005 gram

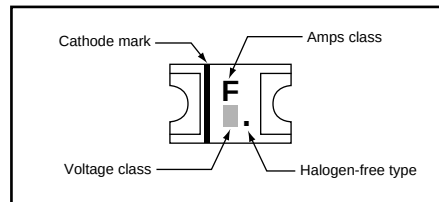
PACKING

- * 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	MSCD012H	-	0.22	-	V
		IF = 10mA		-	0.30	-	
		IF = 100mA		-	0.38	0.45	
		IF = 1mA	MSCD014H	-	0.25	-	
		IF = 10mA		-	0.30	-	
		IF = 100mA		-	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

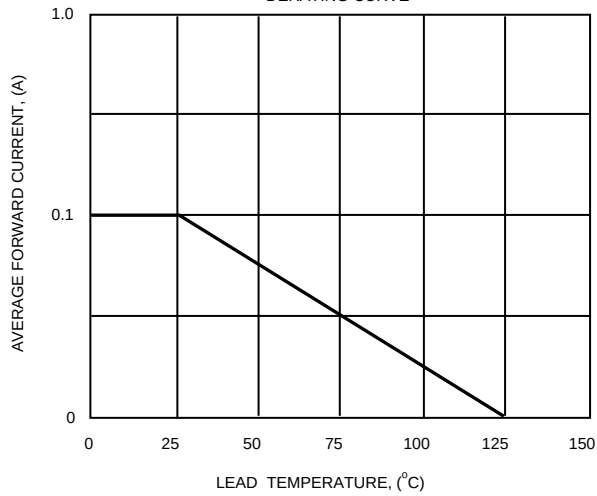


FIG.2 - MAXIMUM NON-REPETITIVE
PEAK FORWARD SURGE CURRENT

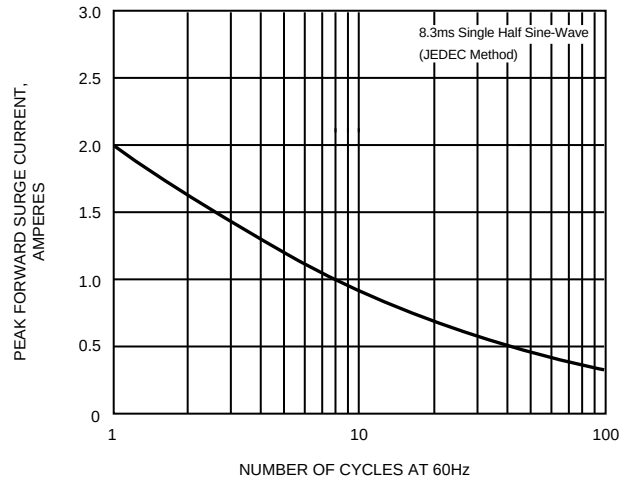


FIG.3 - TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

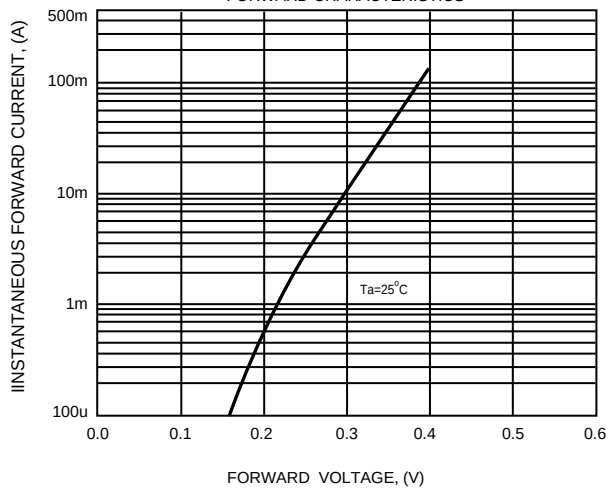


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

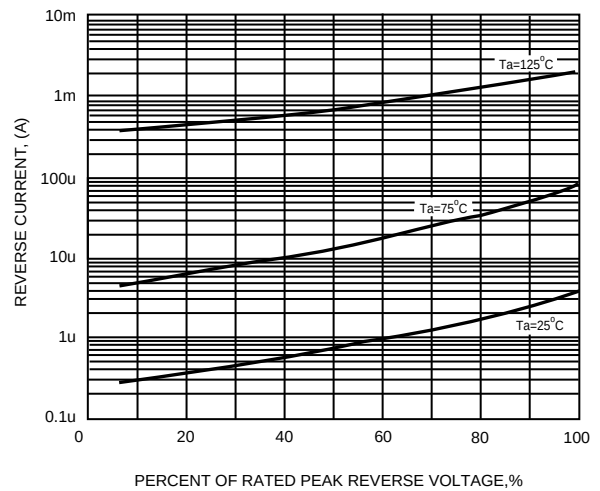


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

