

USCD052H THRU USCD054H

● **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

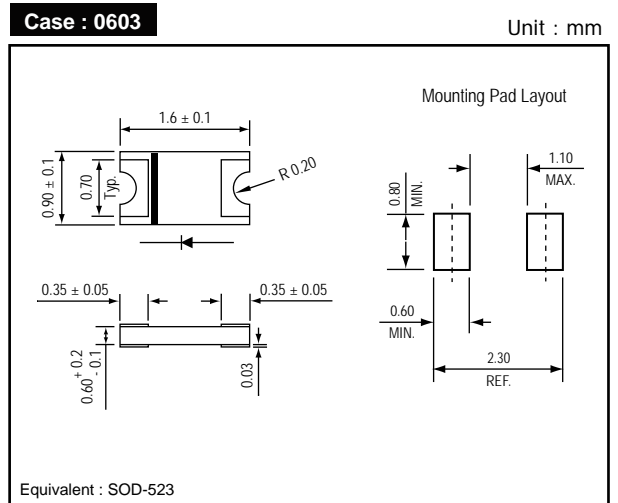
● **MECHANICAL DATA**

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 : 0.003 gram

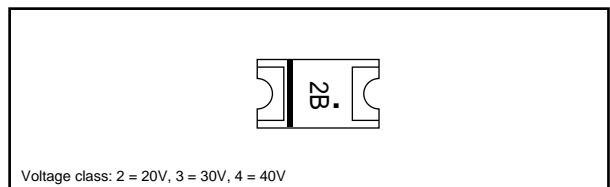
● **PACKING**

- * 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
			USCD052H	USCD053H	USCD054H	
Repetitive peak reverse voltage	VRRM		20	30	40	V
Average forward current	IF(AV)		500			mA
Peak forward surge current	IFSM	8.3ms single half sine-wave	5.0			A
Junction temperature	Tj		125			°C
Operating temperature range	Topr		-40 to +125			
Storage temperature range	TSTG		-40 to +125			

Electrical characteristics (Ta = 25 °C)

ITEM	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	VF	IF = 500mA	-	0.47	0.50	V
Repetitive peak reverse current	IRRM	VR = @ 20V , Ta = 25 °C	-	-	50	uA
Junction capacitance	Cj	VR = 4V, f = 1.0 MHz	-	35	-	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

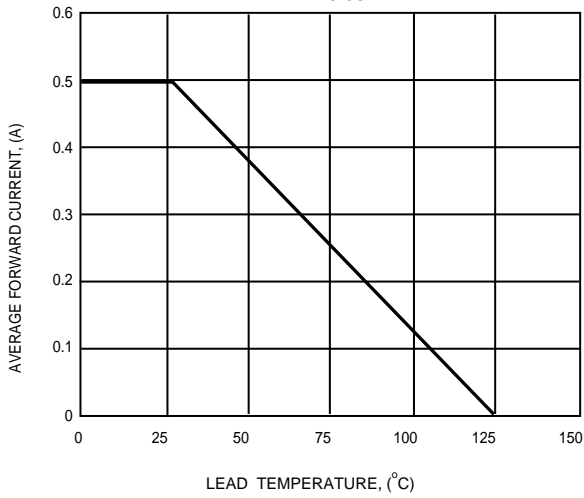


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

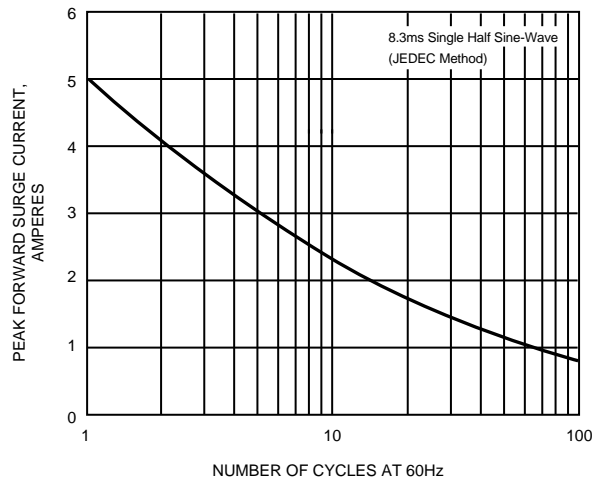


FIG. 3 - FORWARD CHARACTERISTICS

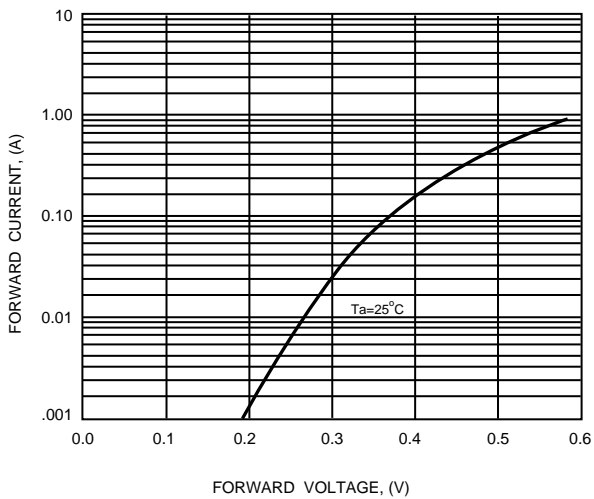


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

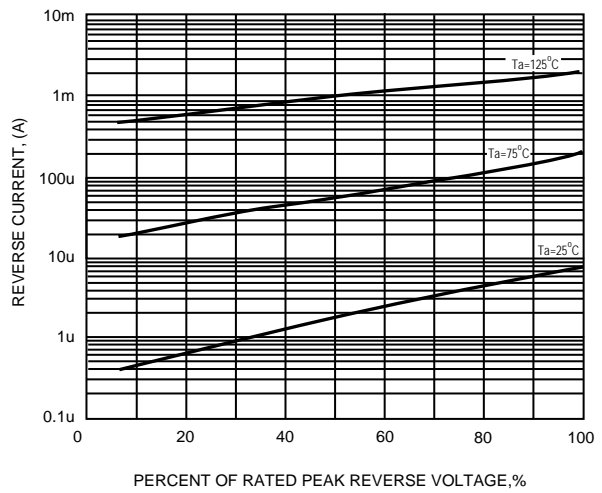


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

