CB140WG-S

Chip Integration Technology Corporation

1A Trench Schottky Rectifier

Main Product Characteristics

$I_{F(AV)}$	1A
V_{RRM}	40V
T_J	150°C
$V_{F(Typ)}$	0.280V

■ Features

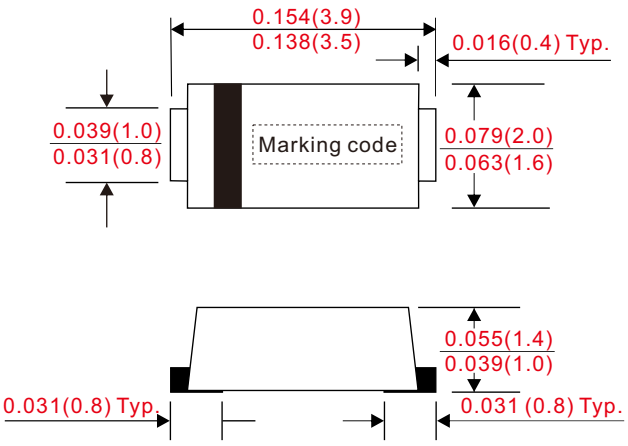
- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Lead free in compliance with EU RoHS.

■ Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-123S
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : Approximated 0.018 gram

■ Outline

SOD-123S



Dimensions in inches and (millimeters)

■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified.

■ Circuit Diagram



Parameter	Conditions	Symbol	CB140WG-S	UNIT
Working peak reverse voltage		V_{RWM}	40	V
Forward rectified current		I_O	1	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	30	A
Peak repetitive reverse surge current	2us - 1kHz	I_{RRM}	1	A
Typical Thermal resistance	Junction to case	$R_{\theta JC}$	35	°C/W
	Junction to ambient	$R_{\theta JA}$	160	
Storage temperature		T_{STG}	-55 ~ +150	°C
Operating Junction temperature		T_J	-55 ~ +150	°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward voltage drop	I_F = 1A, T_J = 25°C	V_F		390	450	mV
	I_F = 1A, T_J = 125°C			280		
Reverse current	V_R = 40V T_J = 25°C	I_R		0.02	0.1	mA
	V_R = 40V T_J = 125°C			7	30	
Reverse Breakdown Voltage	I_R = 0.5mA, T_J = 25°C	V_{BR}	40			V

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■ Rating and characteristic curves

Fig. 1 - Forward Characteristics

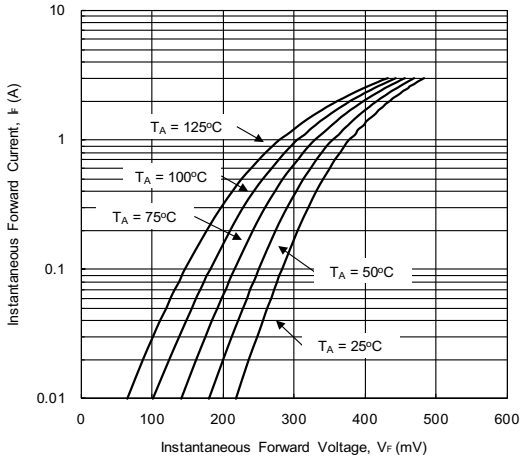


Fig. 2 - Reverse Characteristics

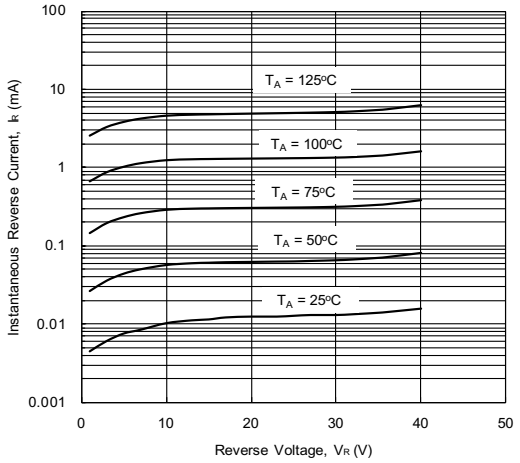


Fig. 3 - Forward Power Dissipation

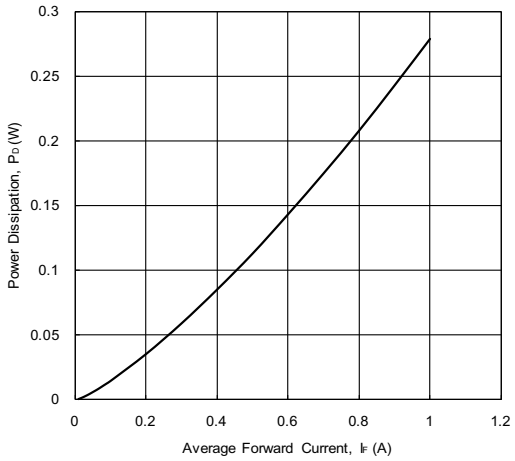


Fig. 4 - Forward Current Derating Curve

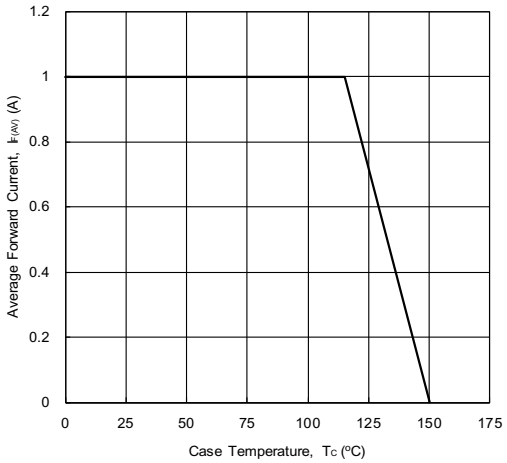
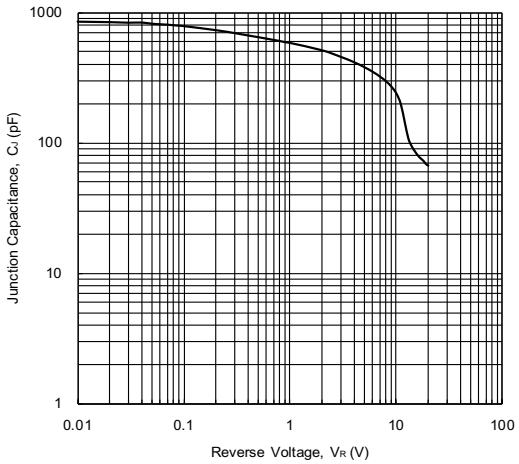
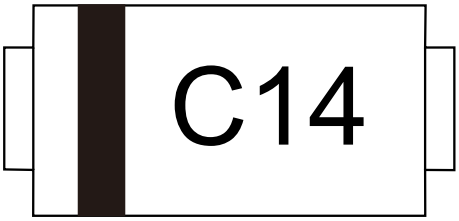


Fig. 5 - Junction Capacitance



■ Marking Information

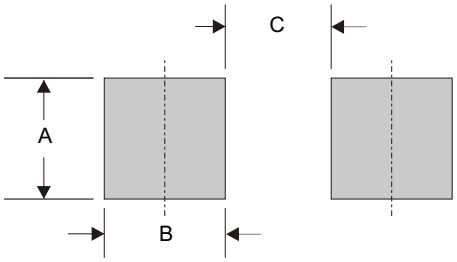


■ Ordering/Packing information

	Part number	Case	Q'TY/Reel (PCS)	Q'TY/Box (PCS)	Q'TY/Carton (PCS)
Halogen free	CB140WG-S	SOD-123S	3,000	30,000	240,000

Notes : 1. For packaging details please reference our website at http://www.citcorp.com.tw/tchinese/products/index.php

■ SOD-123S foot print



A	B	C
0.044 (1.10)	0.039 (1.00)	0.079 (2.00)

Dimensions in inches and (millimeters)

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