CSL545AS-A

Chip Integration Technology Corporation

Super Low Barrier High Voltage Power Rectifier

Main Product Characteristics

$I_{F(AV)}$	5A
V_{RRM}	45V
T_J	150°C
$V_{(Typ)}$	0.32V

■ Features

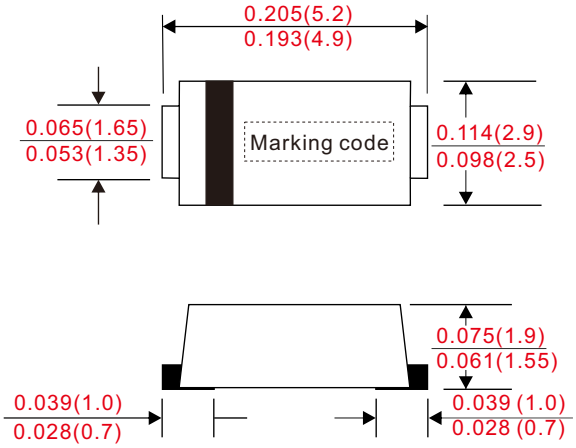
- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Suffix "G" indicates Halogen-free part, ex.CSL545ASG-A.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

■ Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, DO-214AC / SMAS
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : Approximated 0.08 gram

■ Outline

SMAS(DO-214AC)



Dimensions in inches and (millimeters)

■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Conditions	Symbol	CSL545AS	UNIT
Marking code			CSL545	
Working peak reverse voltage		V_{RWM}	45	V
Forward rectified current		I_O	5	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	150	A
Peak repetitive reverse surge current	2us - 1KHz	I_{RRM}	2	
Thermal resistance	Junction to case	$R_{\theta JC}$	30	°C/W
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		340		mV
	I_F = 2.5A, T_J = 25°C			390		
	I_F = 5A, T_J = 25°C				470	
	I_F = 1A, T_J = 125°C			230		
	I_F = 2.5A, T_J = 125°C			320		
	I_F = 5A, T_J = 125°C			440	470	
Reverse current	V_R = V_{RRM} T_J = 25°C	I_R		0.054	0.3	mA
	V_R = V_{RRM} T_J = 125°C			10	35	

Note : 1.FR-4 PCB, 2oz.Copper.

■ Rating and characteristic curves

Fig.1 - Forward Current Derating Curve

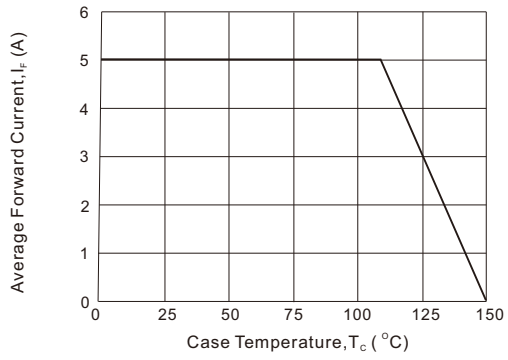


Fig. 2 - Instantaneous Forward Characteristics

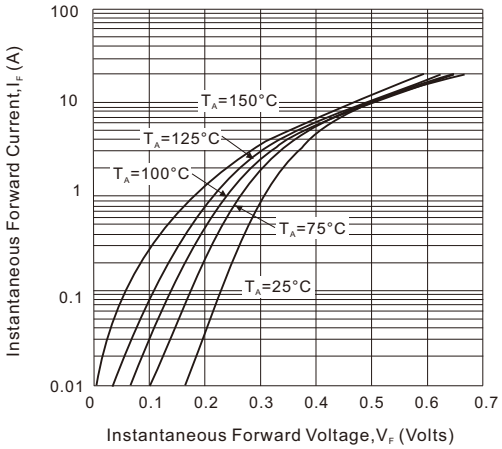
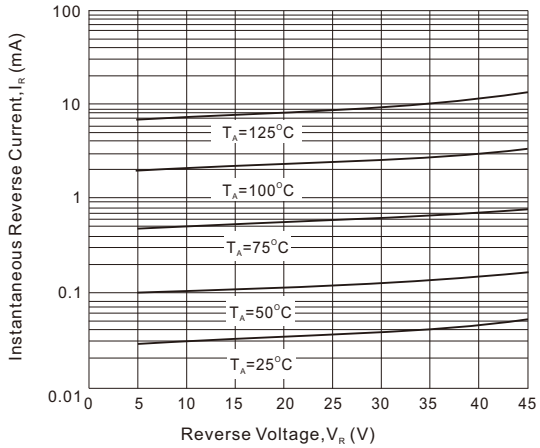
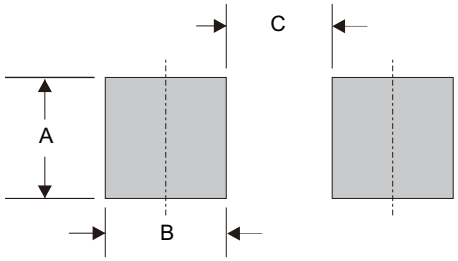


Fig. 3 - Reverse Characteristics



■ SMAS foot print



A	B	C
0.063 (1.60)	0.059 (1.50)	0.110 (2.80)

Dimensions in inches and (millimeters)

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http://www.citcorp.com.tw/ Tel:886-3-5600628 Fax:886-3-5600636
Add:Rm. 3, 2F., No.32, Taiyuan St., Zhubei City, Hsinchu County 302, Taiwan (R.O.C.)