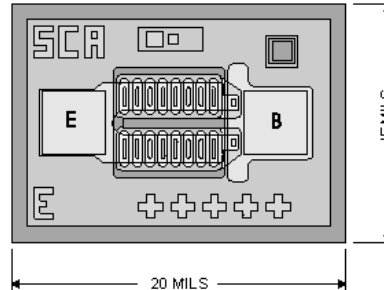


Chip Type 2C5109
Geometry 1007
Polarity NPN

Generic Packaged Parts:
2N5109



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Chip type **2C5109** by Semicoa Semiconductors provides performance similar to these devices.

Part Numbers:

2N5109, 2N5109UB, SD5109, SD5109F, SQ5109, SQ5109F

Product Summary:

APPLICATIONS:

Designed for broadband applications. Usable as high frequency current mode switch to 200 mA.

Features: Special Characteristics

$f_t = 1200 \text{ MHz (typ) at } 50 \text{ mA/15V}$

Mechanical Specifications		
Metallization	Top	Al - 15 kÅ min.
	Backside	Au - 6.5 kÅ nom.
Bonding Pad Size	Emitter	3.4 mils x 3.0 mils
	Base	3.4 mils x 3.0 mils
Die Thickness	8 mils nominal	
Chip Area	15 mils x 20 mils	
Top Surface	Silox Passivated	

Electrical Characteristics				
$T_A = 25^\circ\text{C}$				
Parameter	Test conditions	Min	Max	Unit
BV_{CER}	$I_C = 5.0 \text{ mA}, R_{BE} = 10 \text{ Ohms}$	40	---	V dc
BV_{CEO}	$I_C = 5.0 \text{ mA}$	20	---	V dc
I_{CEO}	$V_{CE} = 15 \text{ V dc}$	---	20	μA
I_{EBO}	$V_{BE} = 3.0 \text{ V dc}$	---	100	μA
h_{FE1}	$I_C = 360 \text{ mA}, V_{CE} = 3.0 \text{ V dc}$	5.0	---	---
h_{FE2}	$I_C = 50 \text{ mA}, V_{CE} = 15 \text{ V dc}$	40	120	---

Due to limitations of probe testing, only dc parameters are tested. This must be done with pulse width less than 300 μs , duty cycle less than 2%.