

Data Sheet No. 2C3960

## **Generic Packaged Part:**

**Request Quotation** 

2N3960

Chip Type 2C3960 Geometry 0003 Polarity NPN

Chip type **2C3960** by Semicoa Semiconductors provides performance similar to these devices.

## Product Summary: APPLICATIONS:

Designed for high-speed current-mode logic switching.

## Part Numbers:

2N3960, 2N3960UB, SD3960F, SQ3960, SQ3960F

## Features:

Mechanical Specifications					
Metallization	Тор	Al - 15 kÅ min.			
	Backside	Au - 6.5 kÅ nom.			
Bonding Pad Size	Emitter	2.7 mils x 2.7 mils			
	Base	2.7 mils x 2.7 mils			
Die Thickness	8 mils nominal				
Chip Area	16 mils x 16 mils				
Top Surface	Silox Passivated				

Electrical Characteristics						
$T_A = 25^{\circ}C$						
Parameter	Test conditions	Min	Max	Unit		
BV <sub>CEO</sub>	I <sub>C</sub> = 10.0 mA	12		V dc		
BV <sub>CBO</sub>	I <sub>C</sub> = 10 μA	20		V dc		
BV <sub>EBO</sub>	I <sub>E</sub> = 10.0 mA	4.5		V dc		
I <sub>CEX</sub>	$V_{CE} = 10 \text{ V}, \text{ V}_{EB} = 2.0 \text{ V}$		5.0	nA		
h <sub>FE1</sub>	$I_{\rm C}$ = 1.0 mA dc, $V_{\rm CE}$ = 1.0 V	25				
h <sub>FE2</sub>	$I_{C} = 10 \text{ mA dc}, V_{CE} = 1.0 \text{ V}$	40	400			
h <sub>FE3</sub>	$I_{\rm C} = 30 \text{ mA dc}, V_{\rm CE} = 1.0 \text{ V}$	25				
V <sub>CE(sat)</sub>	$I_{\rm C} = 30 \text{ mA dc}, I_{\rm B} = 3.0 \text{ mA}$		0.3	V dc		

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