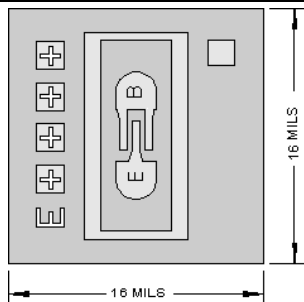




Data Sheet No. 2C3960

**Chip Type 2C3960**  
**Geometry 0003**  
**Polarity NPN**

**Generic Packaged Part:**  
**2N3960**


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

**Part Numbers:**

[2N3960](#), [2N3960UB](#), [SD3960F](#), [SQ3960](#),  
[SQ3960F](#)

**Product Summary:****APPLICATIONS:**

Designed for high-speed current-mode logic switching.

**Features:**

### Mechanical Specifications

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

### Electrical Characteristics

 $T_A = 25^\circ\text{C}$ 

Parameter	Test conditions	Min	Max	Unit
$BV_{CEO}$	$I_C = 10.0 \text{ mA}$	12	---	V dc
$BV_{CBO}$	$I_C = 10 \mu\text{A}$	20	---	V dc
$BV_{EBO}$	$I_E = 10.0 \text{ mA}$	4.5	---	V dc
$I_{CEX}$	$V_{CE} = 10 \text{ V}, V_{EB} = 2.0 \text{ V}$	---	5.0	nA
$h_{FE1}$	$I_C = 1.0 \text{ mA dc}, V_{CE} = 1.0 \text{ V}$	25	---	---
$h_{FE2}$	$I_C = 10 \text{ mA dc}, V_{CE} = 1.0 \text{ V}$	40	400	---
$h_{FE3}$	$I_C = 30 \text{ mA dc}, V_{CE} = 1.0 \text{ V}$	25	---	---
$V_{CE(sat)}$	$I_C = 30 \text{ mA dc}, I_B = 3.0 \text{ mA}$	---	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  $\mu\text{s}$ , duty cycle less than 2%.