

CMPSH05-4

**SURFACE MOUNT  
HIGH CURRENT, LOW  $V_F$   
SILICON SCHOTTKY DIODE**



**SOT-23 CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPSH05-4 is a HIGH CURRENT, LOW  $V_F$  40 volt Schottky Diode packaged in a space saving SOT-23 surface mount case. This device has been designed for small signal general purpose applications when small size and operational efficiency are prime requirements.

**MARKING CODE: C054**

**FEATURES:**

- Low  $V_F$  = 0.35V max @ 100mA
- $V_{RRM}$  = 40V
- $I_F$  = 500mA

**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$ )

Peak Repetitive Reverse Voltage  
Continuous Forward Current  
Peak Repetitive Forward Current,  $t_p \leq 1.0\text{ms}$   
Peak Forward Surge Current,  $t_p = 8.0\text{ms}$   
Power Dissipation  
Operating and Storage Junction Temperature  
Thermal Resistance

**SYMBOL**

SYMBOL		UNITS
$V_{RRM}$	40	V
$I_F$	500	mA
$I_{FRM}$	3.5	A
$I_{FSM}$	10	A
$P_D$	350	mW
$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
$\theta_{JA}$	357	$^\circ\text{C/W}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

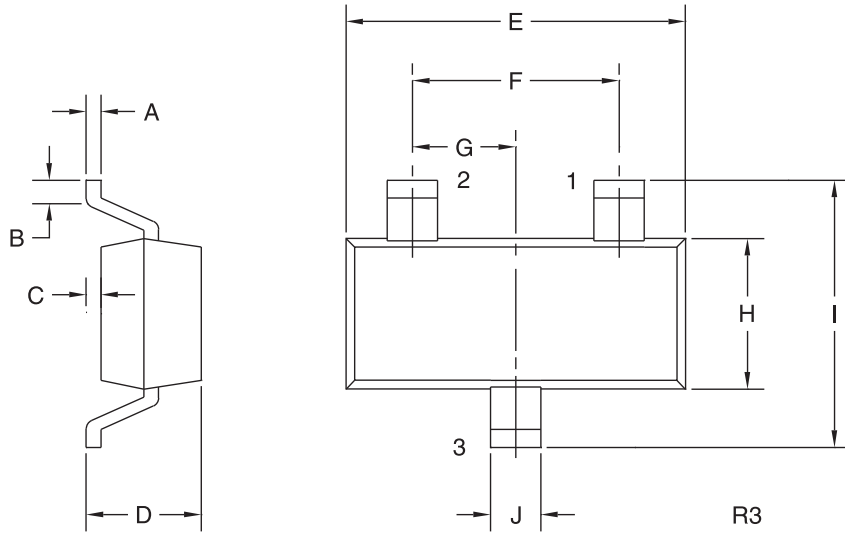
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_R$	$V_R=10\text{V}$		20	$\mu\text{A}$
$I_R$	$V_R=30\text{V}$		100	$\mu\text{A}$
$BV_R$	$I_R=500\mu\text{A}$	40		V
$V_F$	$I_F=100\mu\text{A}$		0.13	V
$V_F$	$I_F=1.0\text{mA}$		0.21	V
$V_F$	$I_F=10\text{mA}$		0.27	V
$V_F$	$I_F=100\text{mA}$		0.35	V
$V_F$	$I_F=500\text{mA}$		0.47	V
$C_T$	$V_R=1.0\text{V}, f=1.0\text{MHz}$		50	pF

R1 (27-January 2010)

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**SOT-23 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) Anode
- 2) No Connection
- 3) Cathode

**MARKING CODE: C054**

<b>DIMENSIONS</b>				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)

R1 (27-January 2010)