

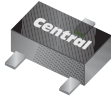
CMUSH05-4

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



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

**ULTRAmi<sup>TM</sup>**



**LOW  
 $V_F$**

**SOT-523 CASE**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMUSH05-4 is a HIGH CURRENT, LOW  $V_F$  40 volt Schottky Diode packaged in a space saving SOT-523 surface mount case. This ULTRAmi<sup>TM</sup> device has been designed for small signal general purpose applications when small size and operational efficiency are prime requirements.

**MARKING CODE: U54**

**SPECIFICATIONS:**

- 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**

$V_{RRM}$  40  
 $I_F$  500  
 $I_{FRM}$  3.5  
 $I_{FSM}$  10  
 $P_D$  250  
 $T_J, T_{stg}$  -65 to +150  
 $\theta_{JA}$  500

**UNITS**

V  
 mA  
 A  
 A  
 mW  
 $^\circ\text{C}$   
 $^\circ\text{C/W}$

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

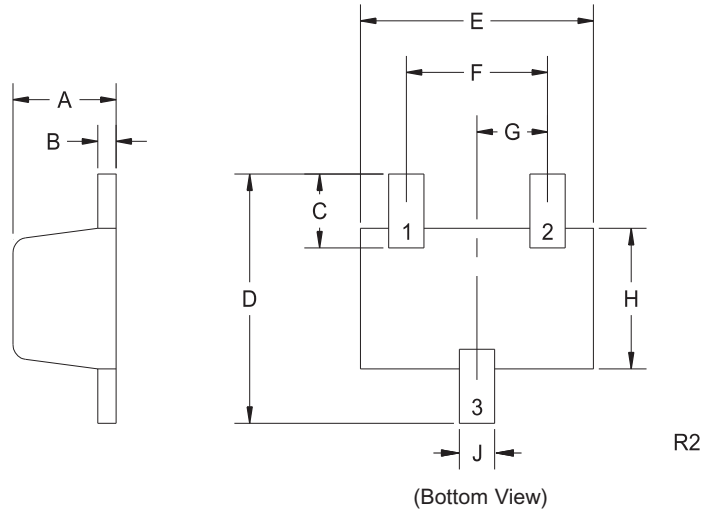
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_R$	$V_R=10\text{V}$		20	$\mu\text{A}$
$I_R$	$V_R=30\text{V}$		100	$\mu\text{A}$
$BV_R$	$I_R=500\mu\text{A}$	40		V
$V_F$	$I_F=100\mu\text{A}$		0.13	V
$V_F$	$I_F=1.0\text{mA}$		0.21	V
$V_F$	$I_F=10\text{mA}$		0.27	V
$V_F$	$I_F=100\text{mA}$		0.35	V
$V_F$	$I_F=500\text{mA}$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

CMUSH05-4

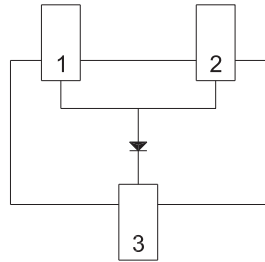
SURFACE MOUNT  
HIGH CURRENT, LOW  $V_F$   
SILICON SCHOTTKY DIODE



SOT-523 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.023	0.031	0.58	0.78
B	0.002	0.008	0.04	0.20
C	0.013	0.021	0.34	0.54
D	0.059	0.067	1.50	1.70
E	0.059	0.067	1.50	1.70
F	0.035	0.043	0.90	1.10
G	0.020		0.50	
H	0.031	0.039	0.78	0.98
J	0.010	0.014	0.25	0.35

SOT-523 (REV: R2)

LEAD CODE:

- 1) Anode
- 2) Anode
- 3) Cathode

MARKING CODE: U54

R1 (9-February 2010)