

CMUSH05-4

SURFACE MOUNT ULTRAmi™
HIGH CURRENT, LOW V_F
SILICON SCHOTTKY DIODE

ULTRAmi™



SOT-523 CASE

MARKING CODE: U54

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

	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Continuous Forward Current	I_F	500	mA
Peak Repetitive Forward Current, $t_p \leq 1\text{ms}$	I_{FRM}	3.5	A
Forward Surge Current, $t_p=8\text{ms}$	I_{FSM}	10	A
Power Dissipation	P_D	250	mW
Operating and Storage			
Junction Temperature	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
Thermal Resistance	θ_{JA}	500	$^\circ\text{C/W}$

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	μA
I_R	$V_R=30\text{V}$		100	μA
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

Central™
Semiconductor Corp.

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™ device has been designed for small signal general purpose applications when small size and operational efficiency are prime requirements.

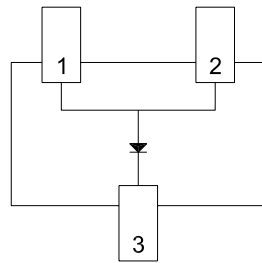
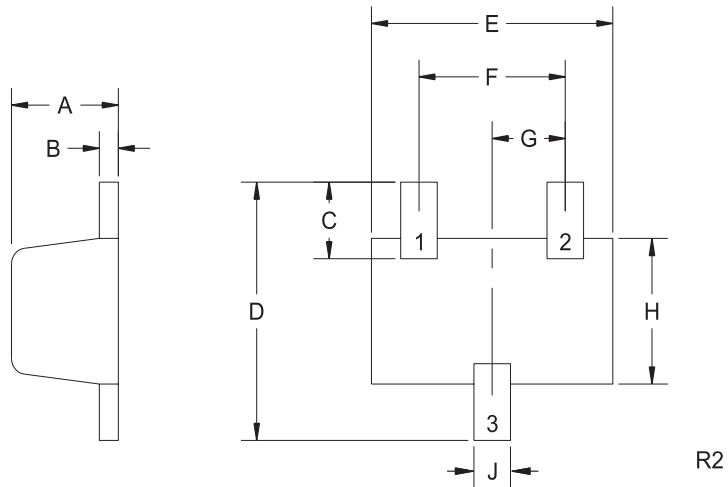
SPECIFICATIONS:

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

R0 (20-May 2004)

SOT-523 CASE - MECHANICAL OUTLINE

BOTTOM VIEW



SYMBOL	DIMENSIONS			
	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