

05S2 THRU 05S4

SURFACE MOUNT FAST RECOVERY RECTIFIER



Features

- High Surge Capability
- Low Forward Voltage
- Low Profile Package

Mechanical Data

- Packaging: SOD-123FL
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking Code: 05S2---K2; 05S3---K3 ; 05S4---K4

Maximum Ratings

Symbol	Rating		Rating	Unit
V_{RMS}	Maximum RMS Voltage	05S2	14	V
		05S3	21	
		05S4	28	
V_{RRM}	Repetitive Reverse Voltage	05S2	20	V
		05S3	30	
		05S4	40	
$I_{F(AV)}$	Rectified Current (Average) Half Wave Rectification with Resist. Load at $T_L=90^{\circ}C$		0.5	A
I_{FSM}	Surge Forward Current at , $T_L=70^{\circ}C, 8.3ms$		30	A
$R_{\theta JA}$	Typical Thermal Resistance(Note2)		88	$^{\circ}C/W$
$R_{\theta JC}$			43	$^{\circ}C/W$
$R_{\theta JL}$			30	$^{\circ}C/W$
P_D	Power Dissipation		1.14	W
T_J	Junction Temperature		-65 to +125	$^{\circ}C$
T_{STG}	Storage Temperature		-65 to +125	$^{\circ}C$

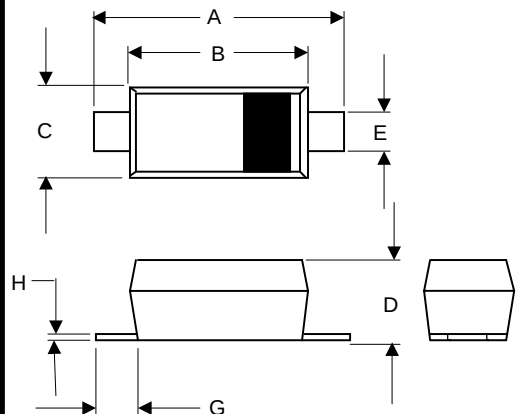
Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
V_F	Forward Voltage				
	(@1A dc)	05S2	0.45	---	V
		05S3	0.50	---	
		05S4	0.55	---	
I_R	Leakage Current				
	@ $T_A=25^\circ\text{C}$	---	0.1	---	mA
	@ $T_A=100^\circ\text{C}$	---	9.0	---	mA
C_j	Typical Junction Capacitance @ $f=1.0\text{MHz}, V_r=4\text{V}$	---	110	---	pF

Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.
2. Thermal Resistance : PC Board Mounted on 0.2*0.2"(5*5mm) copper pad area.

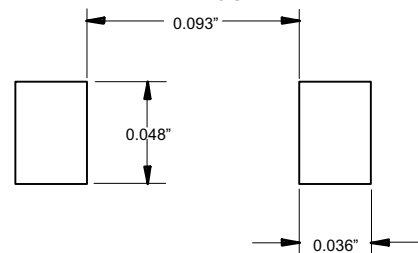
FAST RECOVERY RECTIFIER 20 to 40 Volts

SOD-123FL



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.122	2.55	3.10	
C	.055	.075	1.40	1.90	
D	.035	.053	0.90	1.35	
E	.020	.041	0.50	1.05	
G	.010	----	0.25	----	
H	----	.010	----	.25	

SUGGESTED SOLDER PAD LAYOUT



05S2-05S4

Fig. 1-TYPICAL FORWARD CURRENT

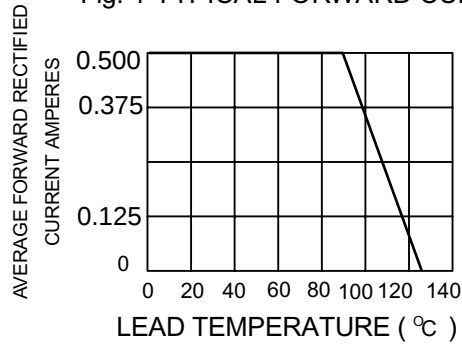


Fig. 2-TYPICAL FORWARD CHARACTERISTICS

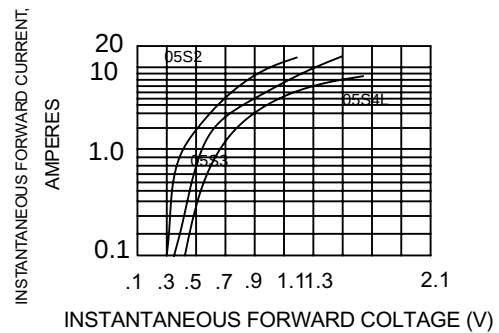


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

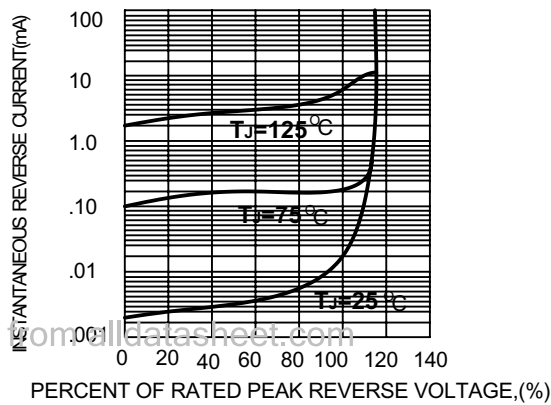


Fig. 4-FORWARD SURGE CURRENT

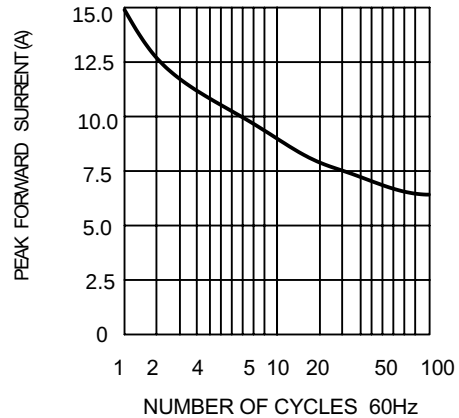


Fig. 5-TYPICAL JUNCTION CAPACITANCE

