

Schottky Diode

Features

- ♦Fast Switching Device
- ♦Low Turn-on Voltage
- ♦PN Junction Guard Ring for Transient and ESD Protection

Mechanical Data

- ♦SOD-323 Small Outline Plastic Package
- ♦Polarity: Color band denotes cathode end
- ♦Mounting Position: Any

MARKING: K73

Maximum Ratings & Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol	Value	Unit
Reverse Voltage	V_R	70	V
Peak Reverse Voltage	V_{RRM}	70	V
Power Dissipation	P_D	200	mW
Operating junction temperature	T_J	-55~+125	°C
Storage temperature range	T_{STG}	-65~+150	°C
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	K/W
Continuous Forward Current	I_F	70	mA
Non-repetitive Peak Forward Surge Current @ $t_p=1\mu s$; $T_A=25^\circ C$	I_{FSM}	100	mA

Electrical Characteristics

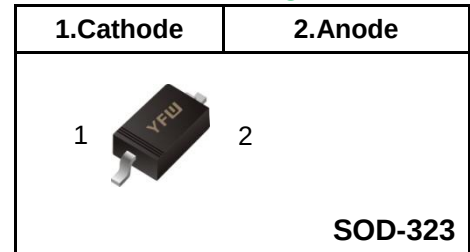
(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Test Condition	Symbols	Limits			Unit
			Min	Typ	Max	
Reverse Voltage(note 2)	$I_R=10\mu A$	$V(BR)$	70	-	--	V
Reverse Leakage Current	$V_R=50V$; $t_p<300\mu s$	I_R	-	-	30	nA
Forward Voltage	$I_F=1.0mA$; $t_p<300\mu s$	V_F	-	-	0.41	V
	$I_F=15mA$; $t_p<300\mu s$		-	-	1.00	
Reverse Recovery Time	$I_F=I_R=10mA$ to $I_R=10mA$ $R_L=100\Omega$	T_{RR}	-	-	5	μs
Capacitance	$V_R=0V$, $f=1MHz$	C_T	-	-	2	pF

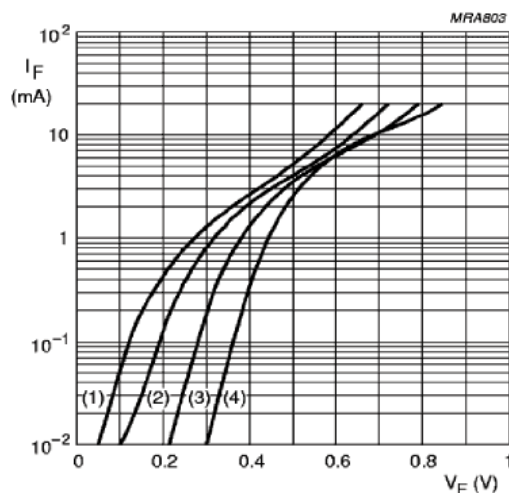
Notes:

1. Valid provided that electrodes are kept at ambient temperature
2. Test period<3000 μs

Pinning

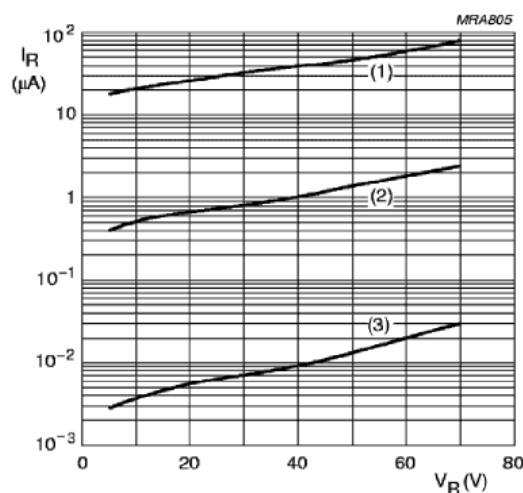


Typical Characteristics



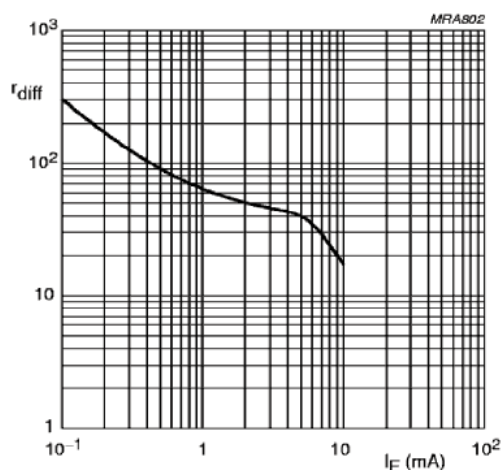
- (1) $T_{amb} = 125\text{ }^{\circ}\text{C}$.
(2) $T_{amb} = 85\text{ }^{\circ}\text{C}$.
(3) $T_{amb} = 25\text{ }^{\circ}\text{C}$.
(4) $T_{amb} = -40\text{ }^{\circ}\text{C}$.

Forward current as a function of forward voltage; typical values.



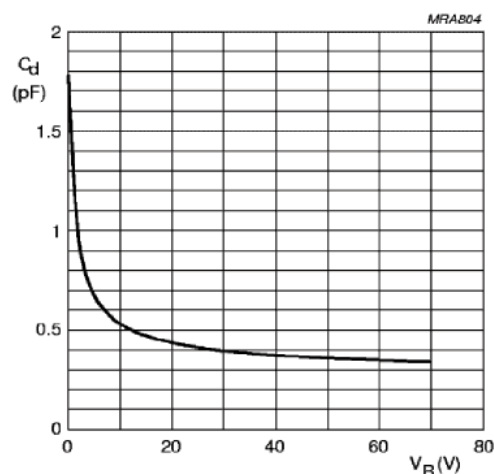
- (1) $T_{amb} = 125\text{ }^{\circ}\text{C}$.
(2) $T_{amb} = 85\text{ }^{\circ}\text{C}$.
(3) $T_{amb} = 25\text{ }^{\circ}\text{C}$.

Reverse current as a function of reverse voltage; typical values.



$f = 10\text{ kHz}$.

Differential forward resistance as a function of forward current; typical values.

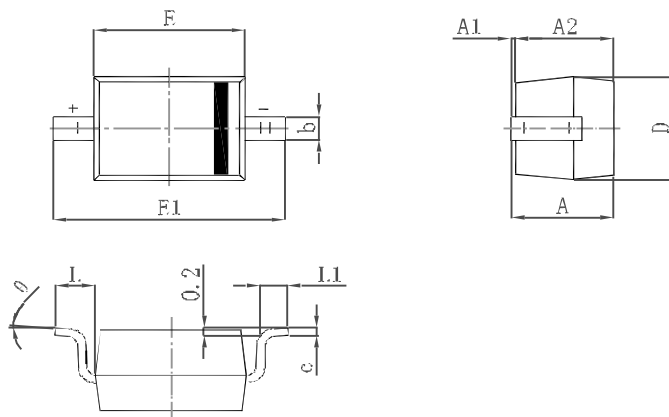


$f = 1\text{ MHz}$; $T_{amb} = 25\text{ }^{\circ}\text{C}$.

Diode capacitance as a function of reverse voltage; typical values.

Package Outline

SOD-323



Symbol	Min.(mm)	Max.(mm)
A		1.000
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.350
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
L	0.475REF	
L1	0.250	0.400
θ	0°	8°

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOD-323	Tape/Reel, 7" reel	3000	EIA-481-1