

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Fast switching speed Max:4ns.
- High conductance.
- Connected in series.
- Surface mount package ideally suited for automatic insertion.

APPLICATIONS

- High-speed switching in thick and thin-film circuits.

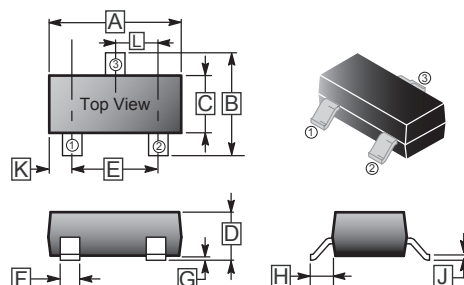
MARKING

A4

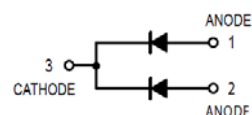
PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch

SOT-23



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.04	G	-	0.18
B	2.10	2.80	H	0.40	0.60
C	1.20	1.60	J	0.08	0.20
D	0.89	1.40	K	0.6	REF.
E	1.78	2.04	L	0.85	1.15
F	0.30	0.50			



ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter		Symbol	Value	Unit
Reverse Voltage		V_R	70	V
Forward current		I_F	200	mA
Peak forward surge current		$I_{FM}(\text{Surge})$	500	mA
Total Device Dissipation FR- 5 Board ¹	$T_A=25^\circ\text{C}$	P_D	225	mW
	De-rate above 25°C		1.8	mW / $^\circ\text{C}$
Thermal Resistance Junction to Ambient		$R_{\theta JA}$	556	$^\circ\text{C} / \text{W}$
Total Device Dissipation Alumina Substrate ²	$T_A=25^\circ\text{C}$	P_D	300	mW
	De-rate above 25°C		2.4	mW / $^\circ\text{C}$
Thermal Resistance Junction to Ambient		$R_{\theta JA}$	417	$^\circ\text{C} / \text{W}$
Junction, Storage Temperature		T_J, T_{STG}	-55~150	$^\circ\text{C}$

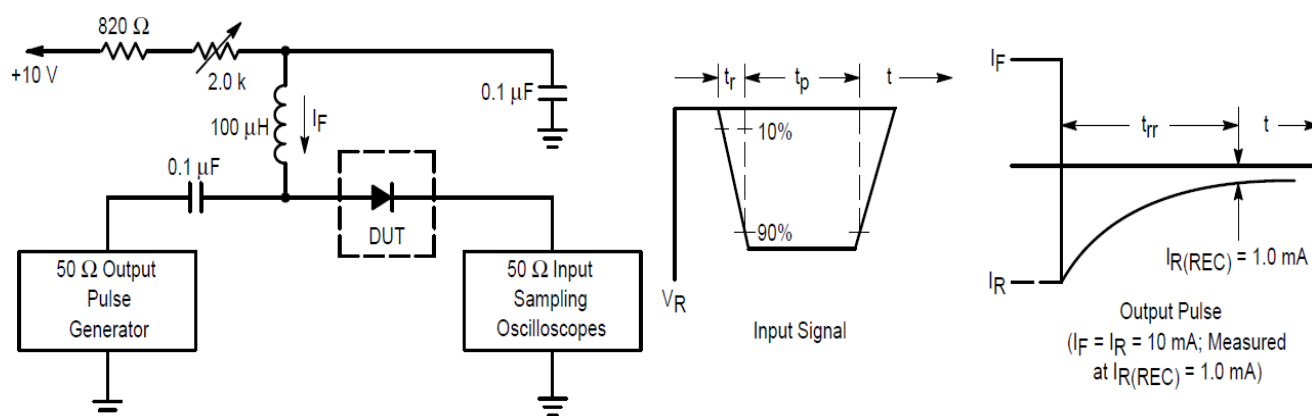
Note:

1. FR-5 = $1.0 \times 0.75 \times 0.062$ in.
2. Alumina = $0.4 \times 0.3 \times 0.024$ in. 99.5% alumina.

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

Parameter	Symbol	Min.	Max.	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	70	-	V	$I_{BR}=100\mu\text{A}$
Leakage Current	I_R	-	60	μA	$V_R=25\text{V}, T_J=150^\circ\text{C}$
		-	2.5		$V_R=70\text{V}$
		-	100		$V_R=70\text{V}, T_J=150^\circ\text{C}$
Forward Voltage	V_F	-	715	mV	$I_F=1\text{mA}$
		-	855		$I_F=10\text{mA}$
		-	1000		$I_F=50\text{mA}$
		-	1250		$I_F=150\text{mA}$
Diode Capacitance	C_D	-	1.5	pF	$V_R=0, f=1\text{MHz}$
Reverse Recovery Time	t_{rr}	-	6	nS	$I_F=I_R=10\text{mA}, I_{R(REC)}=1\text{mA}(\text{Figure 1}), R_L=100\Omega$

RATINGS AND CHARACTERISTIC CURVES



- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10 mA.
2. Input pulse is adjusted so $I_{R(\text{peak})}$ is equal to 10 mA.
3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

RATINGS AND CHARACTERISTIC CURVES

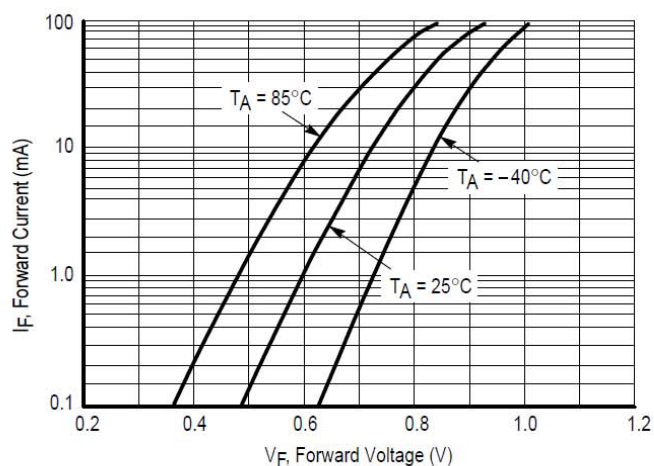


Figure 2. Forward Voltage

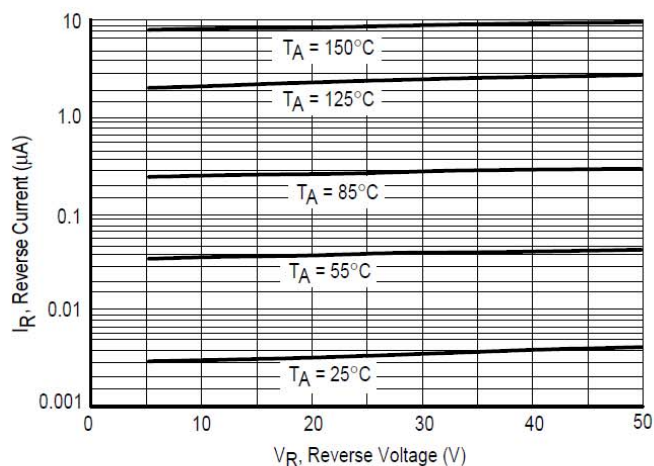


Figure 3. Leakage Current

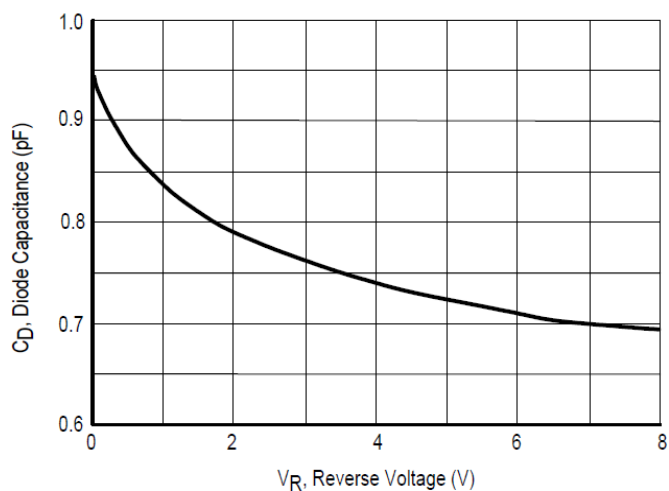


Figure 4. Capacitance