

HIGH SPEED SWITCHING
SILICON EPITAXIAL DIODE

FEATURES

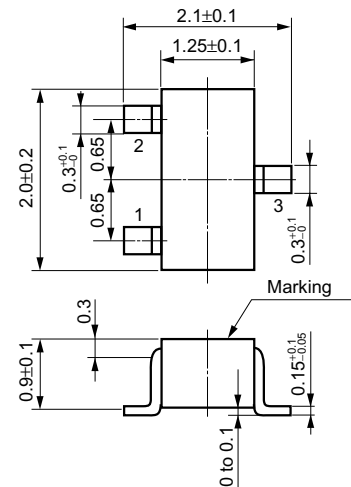
- Low capacitance: $C_t = 4.0$ pF MAX.
- High speed switching: $t_{rr} = 3.0$ ns MAX.
- Wide applications including switching, limiter, clipper.

ABSOLUTE MAXIMUM RATINGS

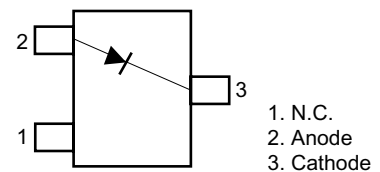
Maximum Voltages and Currents ($T_A = 25^\circ\text{C}$)

Peak Reverse Voltage	V_{RM}	100	V
DC Reverse Voltage	V_R	100	V
Peak Forward Current	I_{FM}	300	mA
Average Rectified Current	I_o	100	mA
DC Forward Current	I_F	100	mA
Maximum Temperatures			
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to + 150	$^\circ\text{C}$
Thermal Resistance			
Junction to Ambient	$R_{th(j-a)}$	0.85	$^\circ\text{C}/\text{mW}$

PACKAGE DIMENSIONS (Unit: mm)



CONNECTION DIAGRAM (Top View)



Marking : A14

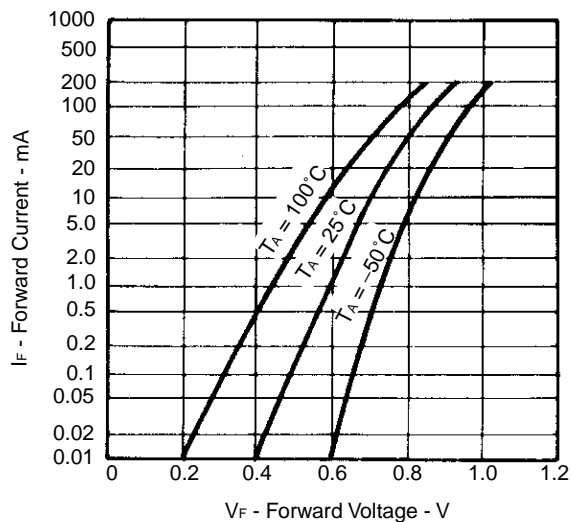
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

CHARACTERISTICS	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Forward Voltage	V_{F1}	$I_F = 10$ mA		720	850	mV
	V_{F2}	$I_F = 50$ mA		850	1000	mV
	V_{F3}	$I_F = 100$ mA		950	1200	mV
Reverse Current	I_R	$V_R = 100$ V			1.0	μA
Capacitance	C_t	$V_R = 0$ V, $f = 1.0$ MHz		2.0	4.0	pF
Reverse Recovery Time	t_{rr}	$I_F = 10$ mA, $V_R = 6$ V, $R_L = 100 \Omega$, See Test Circuit.			3.0	ns

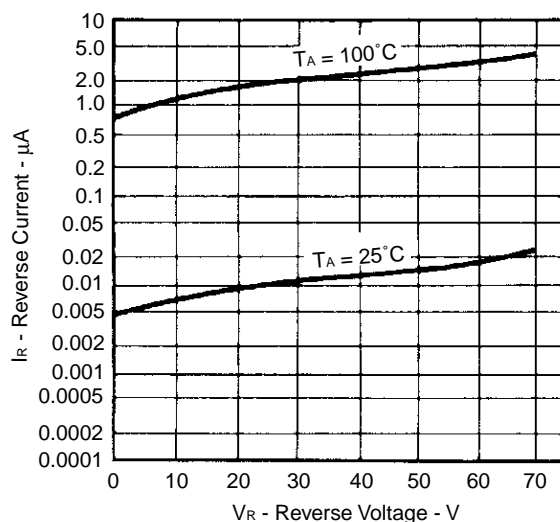
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TYPICAL CHARACTERISTICS (T_A = 25°C)

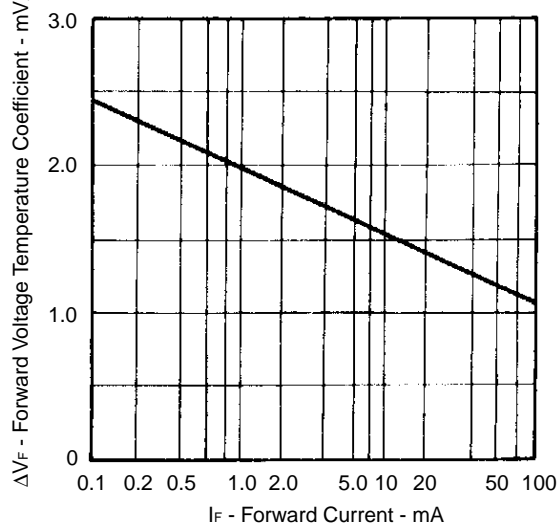
FORWARD CURRENT vs. FORWARD VOLTAGE



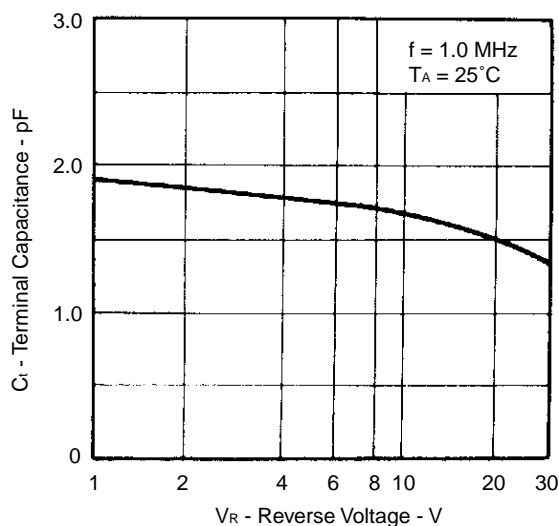
REVERSE CURRENT vs. REVERSE VOLTAGE



FORWARD VOLTAGE TEMPERATURE COEFFICIENT vs. FORWARD CURRENT

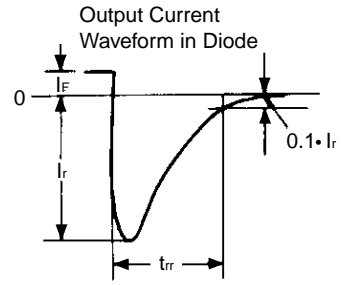
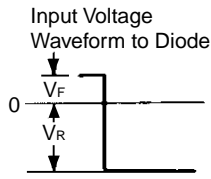
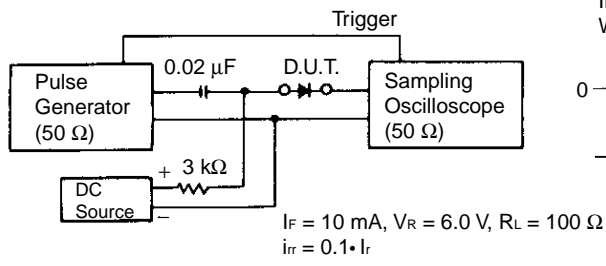


TERMINAL CAPACITANCE vs. REVERSE VOLTAGE



SWITCHING CHARACTERISTICS TEST CIRCUIT

Reverse recovery time : t_{rr}



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