



# DS446

Silicon Epitaxial Planar Type  
Temperature Compensation Use

## Very High-Speed Switching Diode

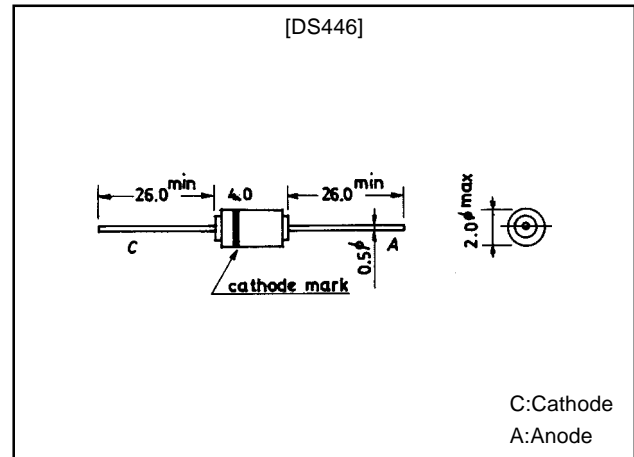
### Features

- Glass sleeve structure.
- Power dissipation :  $P=300\text{mW}$  max.
- Interterminal Capacitance :  $C=3.0\text{pF}$  max.
- Reverse recovery time :  $t_{rr}=4.0\text{ns}$  max.

### Package Dimensions

unit:mm

1080



### Specifications

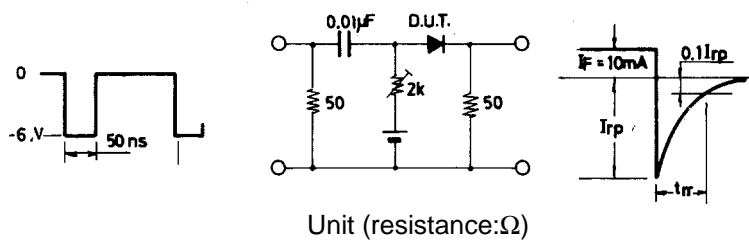
#### Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

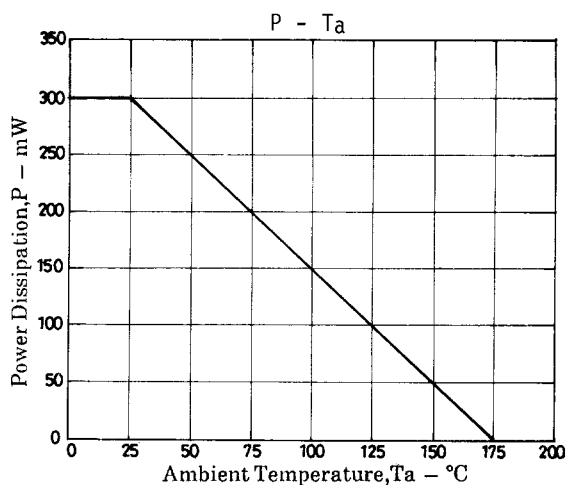
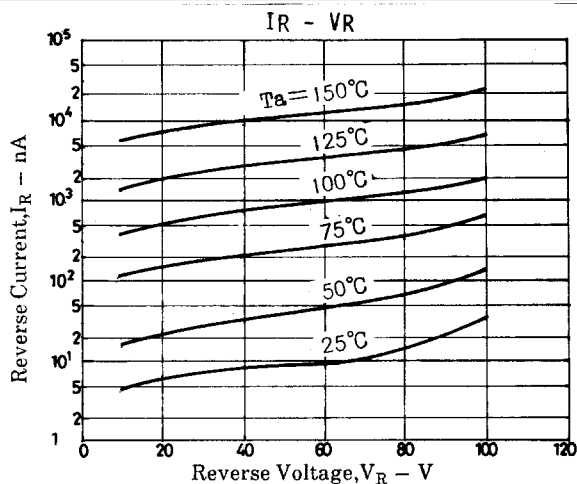
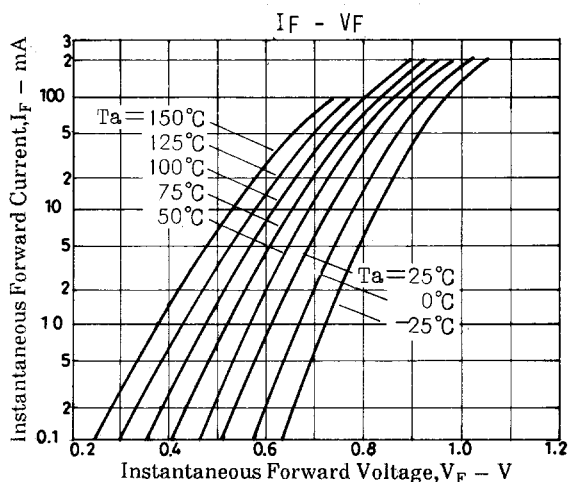
Parameter	Symbol	Conditions	Ratings	Unit
Peak Reverse Voltage	$V_{RM}$		105	V
Reverse Voltage	$V_R$		100	V
Peak Forward Current	$I_{FM}$		500	mA
Average Rectified Current	$I_O$		200	mA
Surge Forward Current	$I_{FSM}$	1s pulse	700	mA
Power Dissipation	$P$		300	mW
Junction Temperature	$T_j$		175	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-65 to +175	$^\circ\text{C}$

#### Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Forward Voltage	$V_F$	$I_F=1.5\text{mA}$	0.55		0.65	V
Reverse Current	$I_R$	$V_R=100\text{V}$			0.1	$\mu\text{A}$
Interterminal Capacitance	$C$	$V_R=0\text{V}$ , $f=1\text{MHz}$		1.5	3.0	pF
Reverse Recovery Time	$t_{rr}$	$V_R=6\text{V}$ , $I_F=10\text{mA}$ , $R_L=50\Omega$		2.0	4.0	ns

#### Reverse Recovery Time Test Circuit





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