



High-speed switching diode

Features

1. High reliability
2. High forward current capability

Applications

High speed switch and general purpose use
in computer and industrial applications



Absolute Maximum Ratings

$T_j=25^{\circ}\text{C}$

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage			V_{RRM}	50	V
Reverse voltage			V_R	40	V
Peak forward surge current	$t_p=1\mu\text{s}$		I_{FSM}	4	A
Forward current			I_F	600	mA
Average forward current	$V_R=0$		I_{FAV}	300	mA
Power dissipation			P_V	500	mW
Junction temperature			T_j	175	$^{\circ}\text{C}$
Storage temperature range			T_{stg}	-65~+175	$^{\circ}\text{C}$

Stresses exceeding maximum ratings may damage the device. Maximum ratings are stress ratings only. Functional operation above the recommended operating conditions is not implied. Extended exposure to stresses above the recommended operating conditions may affect device reliability.



Electrical Characteristics

$T_j=25^{\circ}\text{C}$

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=1\text{mA}$		V_F	0.54		0.62	V
	$I_F=10\text{mA}$		V_F	0.66		0.74	V
	$I_F=50\text{mA}$		V_F	0.76		0.86	V
	$I_F=100\text{mA}$		V_F	0.82		0.92	V
	$I_F=200\text{mA}$		V_F	0.87		1.0	V
Reverse current	$V_R=50\text{V}$		I_R			100	nA
	$V_R=50\text{V}, T_j=150^{\circ}\text{C}$		I_R			100	μA
Diode capacitance	$V_R=0, f=1\text{MHz}, V_{HF}=50\text{mV}$		C_D			2.5	pF
Reverse recovery time	$I_F=I_R=10\dots 100\text{mA}, I_R=1\text{mA}, R_L=100\Omega$		t_{rr}			4	ns

Characteristics ($T_j=25^{\circ}\text{C}$ unless otherwise specified)

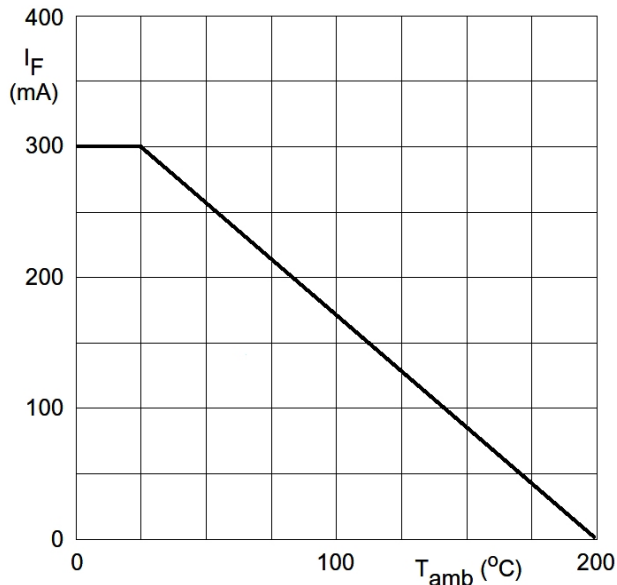


Figure 1. Maximum permissible continuous forward current vs. ambient temperature

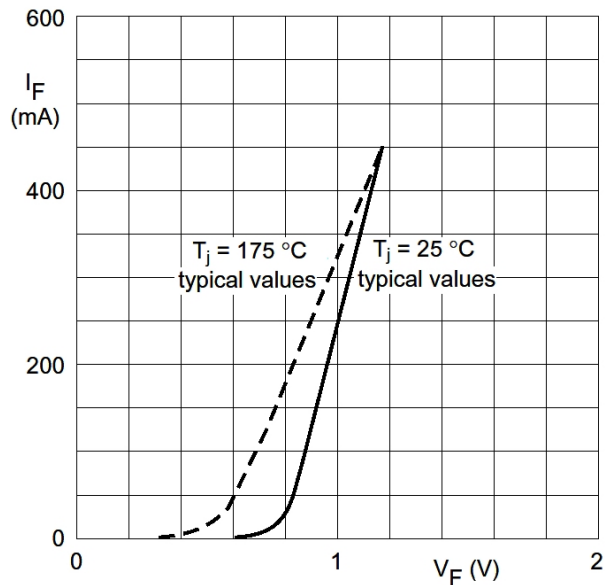


Figure 2. Forward current vs. forward voltage

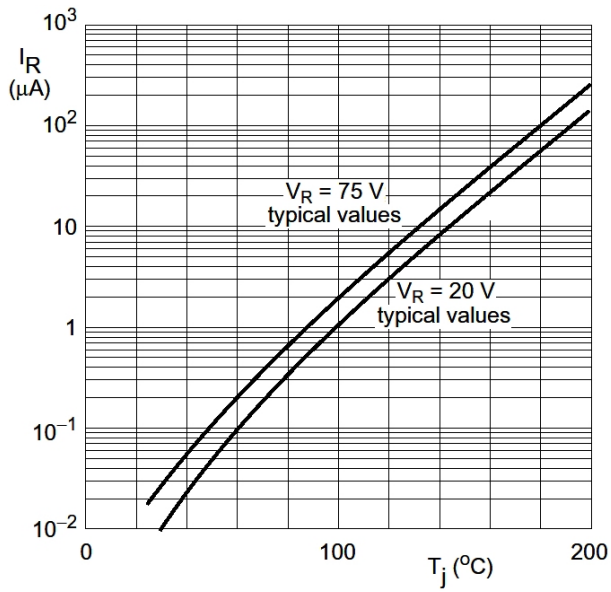


Figure 3. Reverse current vs. junction temperature

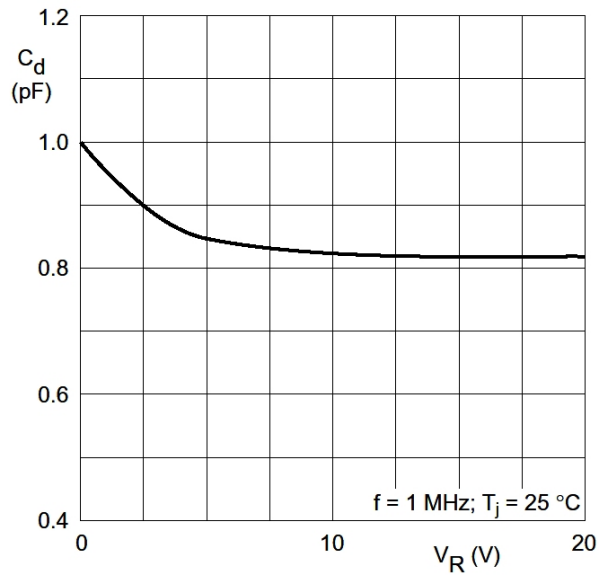
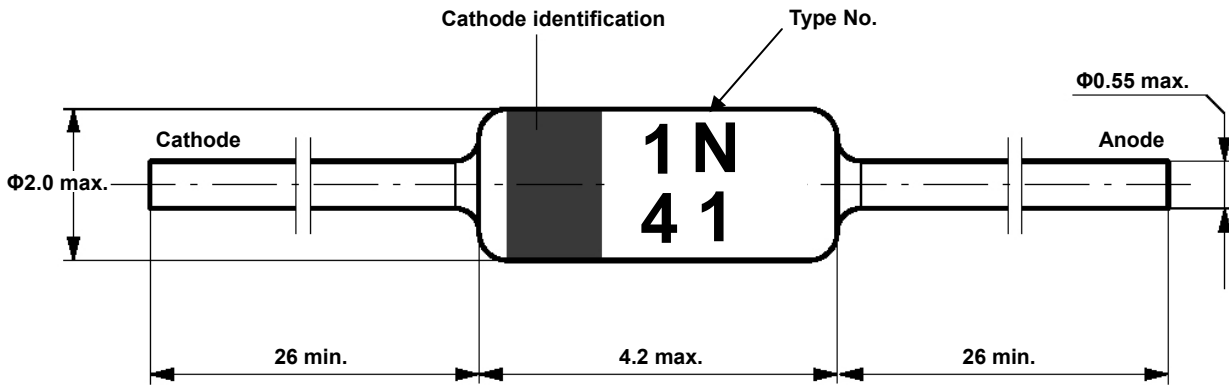


Figure 4. Diode capacitance vs. reverse voltage (Typical values)



Dimensions in mm



Standard Glass Case
JEDEC DO-35

Marking

