

HIGH-SPEED SWITCHING DIODE

FEATURES

- High reliability
- High forward current capability

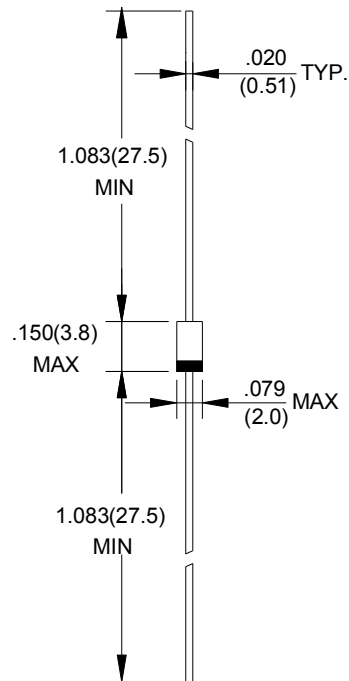
APPLICATIONS

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

CONSTRUCTION

- Silicon epitaxial planar

DO - 35



Dimensions in inches and (millimeters)

ABSOLUTE MAXIMUM RATINGS (T_J=25°C)

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage			V _{RRM}	100	V
Reverse Vltage			V _R	75	V
Peak forward surge current	tp=1uS		I _{FSM}	75	A
Forward current			I _F	75	mA
Average forward current	V _R =0		I _{FAV}	53	mA
Power dissipation			P _V	300	mW
Junction temperature			T _J		°C
Storge temperature range			T _{stg}	-65 ~ +175	°C

MAXIMUM THERMAL RESISTANCE (T_J=25°C)

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	On PC board 50mm*50mm*1.6mm	R _{thJA}	500	K/W

ELECTRICAL CHARACTERISTICS T_J=25°C

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I _F =1mA	V _F	0.54		0.62	V
	I _F =10mA	V _F	0.66		0.74	V
	I _F =50mA	V _F	0.76		0.86	V
	I _F =100mA	V _F	0.82		0.92	V
	I _F =200mA	V _F	0.87		1.0	V
Reverse current	V _R =50V	I _R			100	nA
	V _R =50V, T _J =150°C	I _R			100	uA
Diode capacitance	V _R =0, f=1MHZ, VHF=50mA	CD			2.5	pF
Reverse recovery time	I _F = I _R =10...100mA,RL=100Ω	trr			4	ns

FIG. 1 - MAXIMUM PERMISSIBLE CONTINUOUS FORWARD CURRENT VS. AMBIENT TEMPERATURE

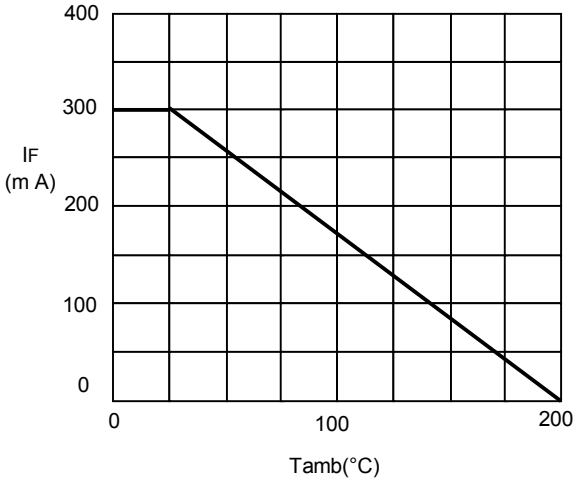


FIG. 2 - FORWARD CURRENT VS. FORWARD VOLTAGE

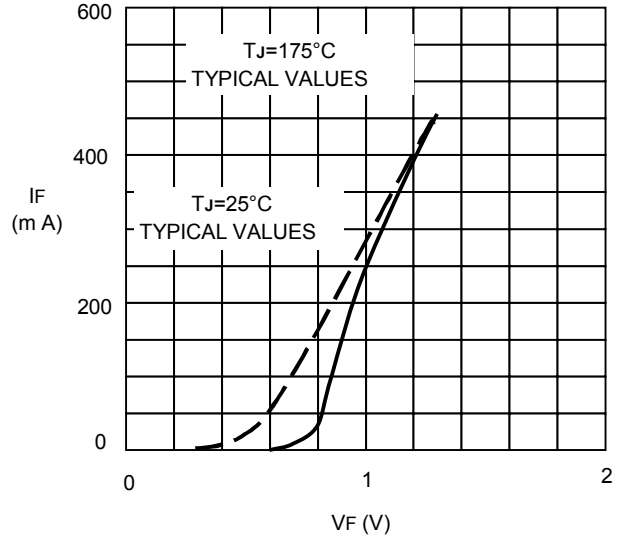


FIG. 3 - REVERSE CURRENT VS. JUNCTION TEMPERATURE

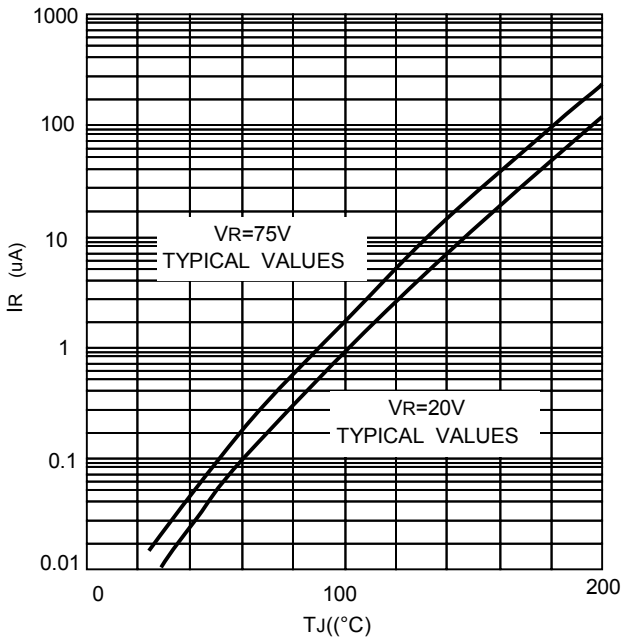


FIG. 4 - DIODE CAPACITANCE VS. REVERSE VOLTAGE (TYPICAL VALUES)

