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

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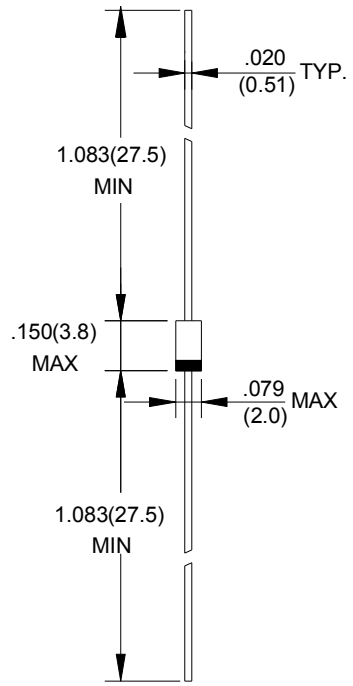

Dimensions in inches and (millimeters)

ABSOLUTE MAXIMUM RATINGS (TJ=25℃)

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage			V_{RRM}	100	V
Reverse VItage			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			PV	300	mW
Junction temperature			TJ		℃
Storge temperature range			TSTG	-65 ~ +175	℃

MAXIMUM THERMAL RESISTANCE (TJ=25℃)

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	On PC board 50mm*50mm*1.6mm	RthJA	500	K/W

ELECTRICAL CHARACTERISTICS TJ=25℃

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	IF=1mA	VF	0.54		0.62	V
	IF=10mA	VF	0.66		0.74	V
	IF=50mA	VF	0.76		0.86	V
	IF=100mA	VF	0.82		0.92	V
	IF=200mA	VF	0.87		1.0	V
Reverse current	VR=50V	IR			100	nA
	VR=50V, Tj=150℃	IR			100	uA
Diode capacitance	VR=0, f=1MHZ, VHF=50mA	CD			2.5	pF
Reverse recovery time	IF= IR=10…100mA,RL=100Ω	trr			4	ns

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

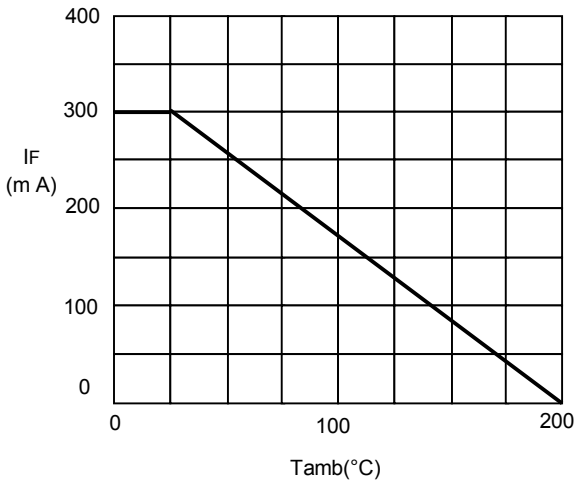

FIG. 2 -FORWARD CURRENT VS.FORWARD VOLTAGE

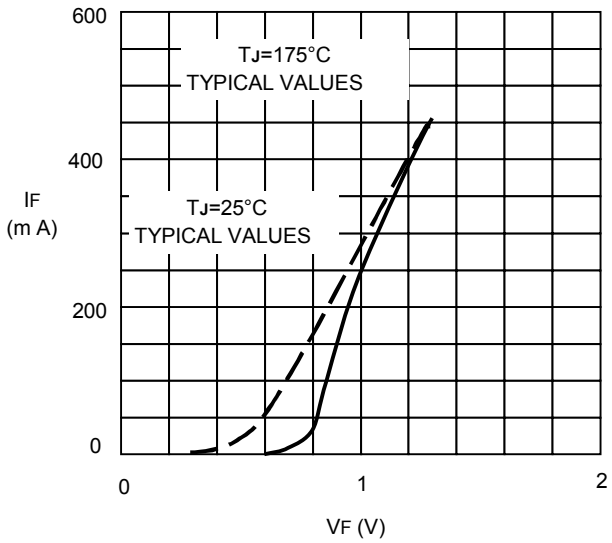

FIG.3-REVERSE CURRENT VS. JUNCTION TEMPERATURE

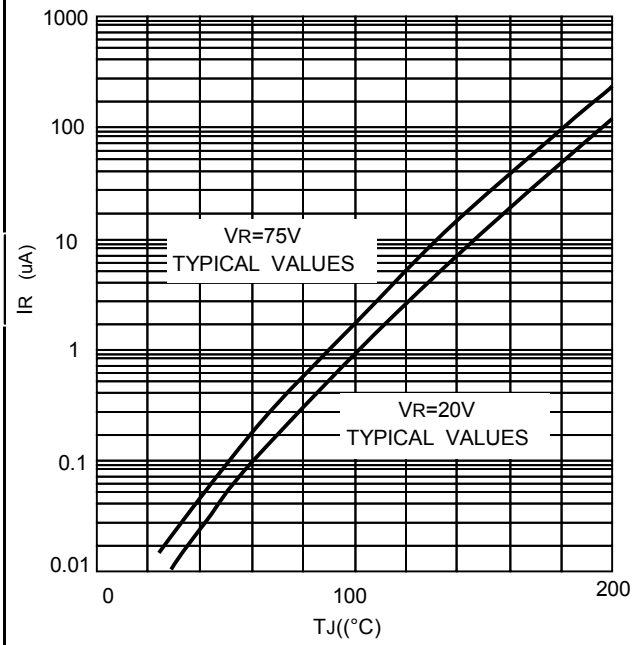

FIG. 4 -DIODE CAPACITANCE VS. REVERSE VOLTAGE (TYPICAL VALUES)