

**HIGH-SPEED SWITCHING DIODE**
**FEATURES**

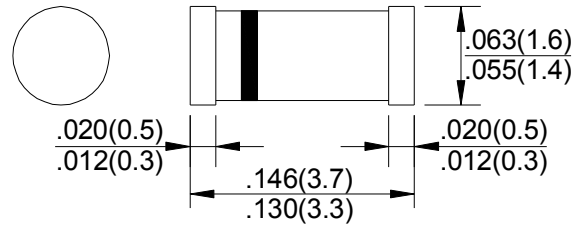
- High reliability
- High forward current capability

**APPLICATIONS**

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

**CONSTRUCTION**

- Silicon epitaxial planar

**DL - 35**


Dimensions in inches and (millimeters)

**ABSOLUTE MAXIMUM RATINGS** (T<sub>J</sub>=25°C)

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage			V <sub>RRM</sub>	100	V
Reverse Vltage			V <sub>R</sub>	75	V
Peak forward surge current	tp=1uS		I <sub>FSM</sub>	75	A
Forward current			I <sub>F</sub>	75	mA
Average forward current	V <sub>R</sub> =0		I <sub>FAV</sub>	53	mA
Power dissipation			P <sub>V</sub>	300	mW
Junction temperature			T <sub>J</sub>		°C
Storge temperature range			T <sub>stg</sub>	-65 ~ +175	°C

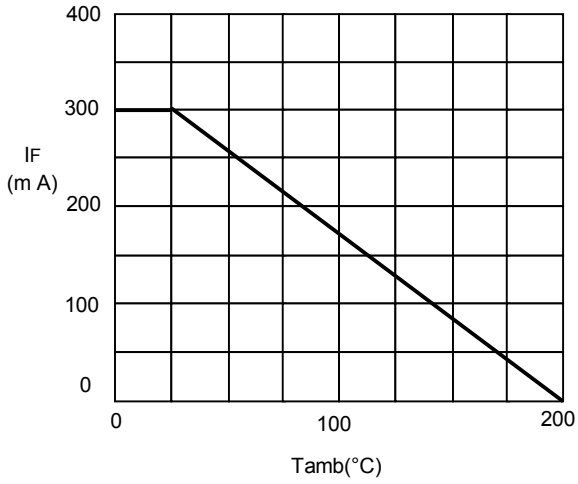
**MAXIMUM THERMAL RESISTANCE** (T<sub>J</sub>=25°C)

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	On PC board 50mm*50mm*1.6mm	R <sub>thJA</sub>	500	K/W

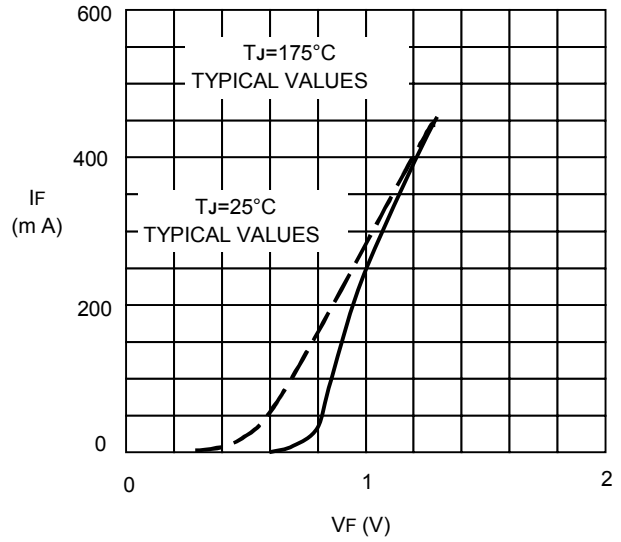
**ELECTRICAL CHARACTERISTICS** T<sub>J</sub>=25°C

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

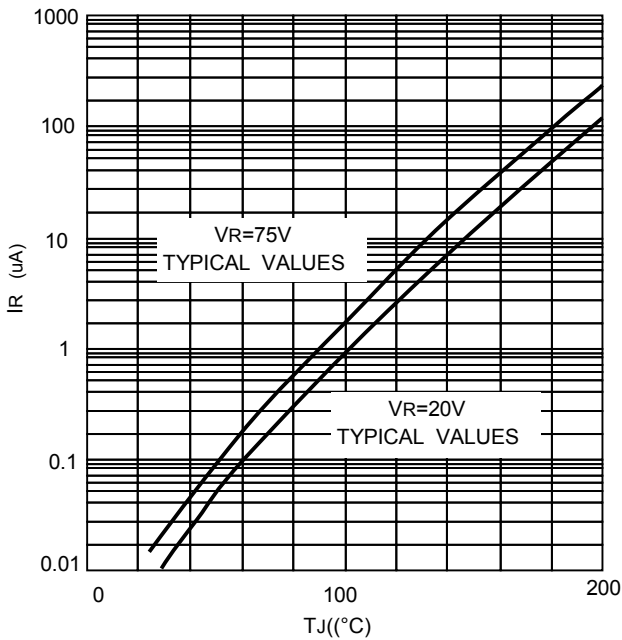
**FIG. 1 - MAXIMUM PERMISSIBLE CONTINUOUS FORWARD CURRENT VS. AMBIENT TEMPERATURE**



**FIG. 2 - FORWARD CURRENT VS. FORWARD VOLTAGE**



**FIG.3-REVERSE CURRENT VS. JUNCTION TEMPERATURE**



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

