

LV10L45E

Rev.G Oct.-2018

/ Descriptions

TO-277

Schottky diode in a TO-277 Plastic Package.

/ Features

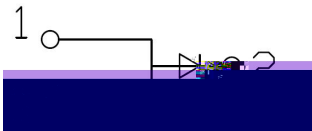
$$V_F(\text{typ}) = 0.26\text{V}$$

High Forward Surge Capability, Ultra Low Forward Voltage Drop $V_F(\text{typ})=0.26\text{V}$, Excellent High Temperature Stability. HF Product.

/ Applications

For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

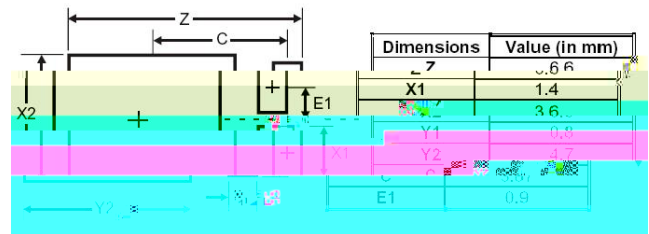
/ Equivalent Circuit



/ Pinning



PIN1 Anode PIN 2 Cathode PIN 3 Anode



Suggested Pad layout

/ h_{FE} Classifications & Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage Peak Reverse Voltage	V_{RRM} V_{RWM} V_{RM}	45	V
RMS Reverse voltage	$V_{R(RMS)}$	42	V
Average Rectified Output Current	I_O	10	A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	275	A
Repetitive peak avalanche power	P_{ARM}	30000	W
Junction Temperature Range	T_j $V_R \leq 80\%V_{RRM}$	150	
Storage Temperature Range	T_{stg}	-55 150	
Typical Thermal Resistance	R_{JA} ^{Note 1}	73	/W

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	V_R	$I_R=0.3mA$	45			V
Forward voltage	V_F	$I_F=2A$ $T_J=25$		0.39	0.43	V
		$I_F=2A$ $T_J=125$		0.26		V
		$I_F=10A$ $T_J=25$		0.49	0.52	V
		$I_F=10A$ $T_J=125$		0.41	0.44	V
Instantaneous Reverse Current	I_R ^{Note 2}	$V_R=45V$ $T_J=25$		3	15	uA
		$V_R=45V$ $T_J=100$			5	mA
		$V_R=45V$ $T_J=125$			10	mA

/Notes

1. FR-4 PCB 2

/FR-4 PCB, 2oz. Copper, minimum recommended pad

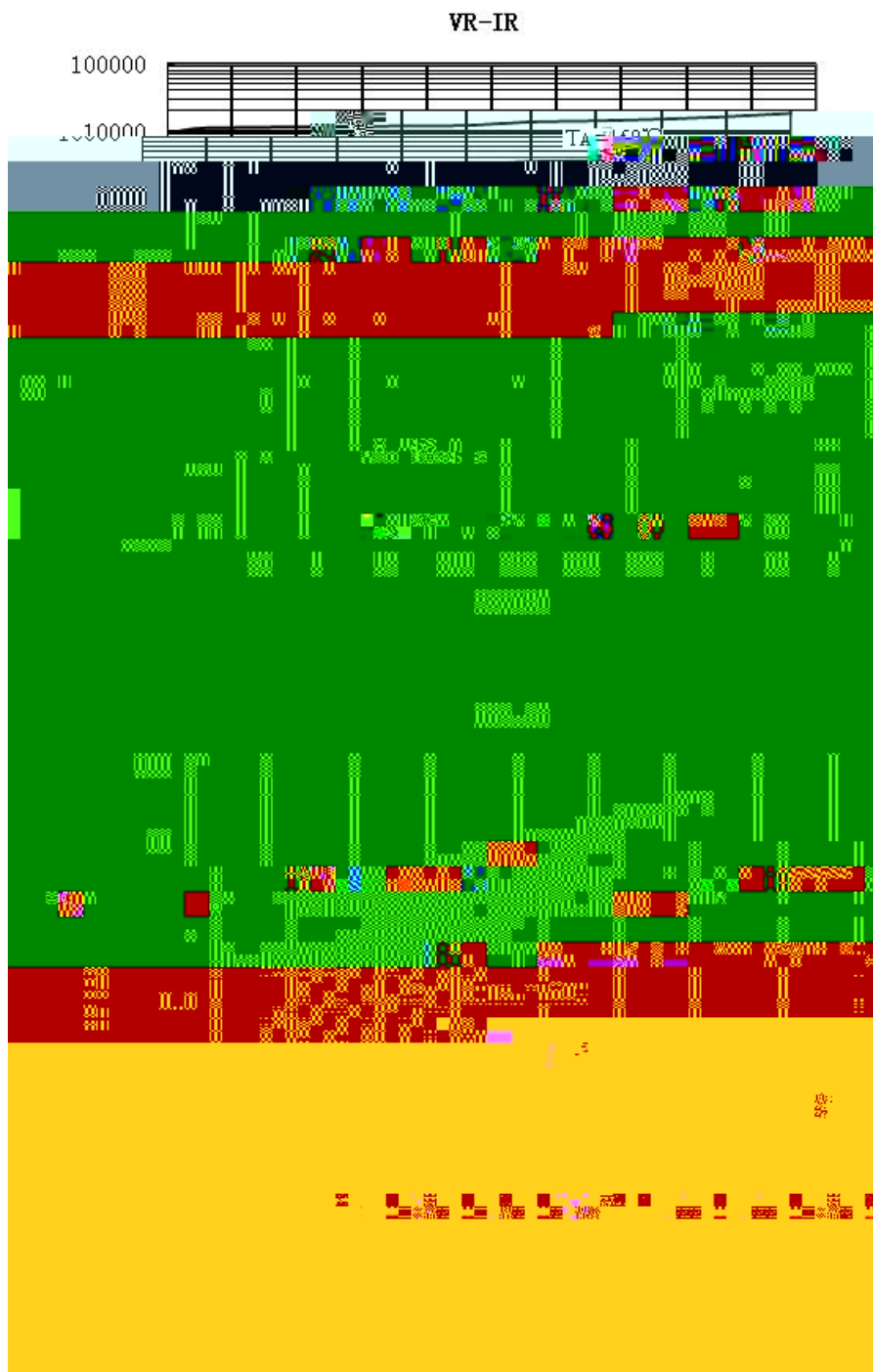
layout per.

2.

/Short duration pulse test used to minimize self-heating

effect.

/ Electrical Characteristic Curve



/ Package Dimensions

