

DATA SHEET

LS10L45

SCHOTTKY BARRIER RECTIFIERS

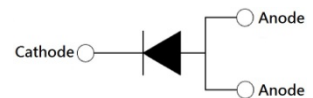
VOLTAGE 45 Volts **CURRENT** 10 Ampere

FEATURES

- FOR SURFACE MOUNTED APPLICATIONS
- LOW STORED CHARGE
- MAJORITY CARRIER CONDUCTION
- EASY PICK AND PLACE
- PLASTIC MATERIAL USED CARRIES UNDERWRITERS
LABORATORY CLASSIFICATION 94 V-0
- EXTREMELY LOW FORWARD VOLTAGE
- LOW POWER LOSS, HIGH EFFICIENCY
- LEAD FREE AND HALOGEN-FREE

MECHANICAL DATA

- CASE : TRANSFER MOLDED
- LEADS : SOLDERABLE PER MIL-STD-202
METHOD 208



CASE : POWERLITE

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.

PARAMETER	SYMBOL	LS10L45	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	45	V
MAXIMUM RMS VOLTAGE	V_{RMS}	32	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	45	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT	I_O	10	A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD PER LEG	I_{FSM}	280	A
TYPICAL THERMAL RESISTANCE, JUNCTION TO CASE	$R_{\theta JC}$	3.0	°C/W
TYPICAL THERMAL RESISTANCE, JUNCTION TO AMBIENT	$R_{\theta JA}$	30	°C/W
STORAGE TEMPERATURE RANGE	T_{STG}	- 65 to + 150	°C
OPERATING TEMPERATURE RANGE	T_J	- 65 to + 150	°C

ELECTRICAL CHARACTERISTICS (AT $T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

PARAMETER	SYMBOL	LS10L45	UNITS
MAXIMUM FORWARD VOLTAGE AT 10A	V_F	0.47	V
MAXIMUM DC REVERSE CURRENT	I_R	$V_R = 45\text{V}, T_J = 25^\circ\text{C}$	0.3
		$V_R = 45\text{V}, T_J = 100^\circ\text{C}$	15

NOTES:

1. PULSE TEST: 300 μs PULSE WIDTH, 1% DUTY CYCLE

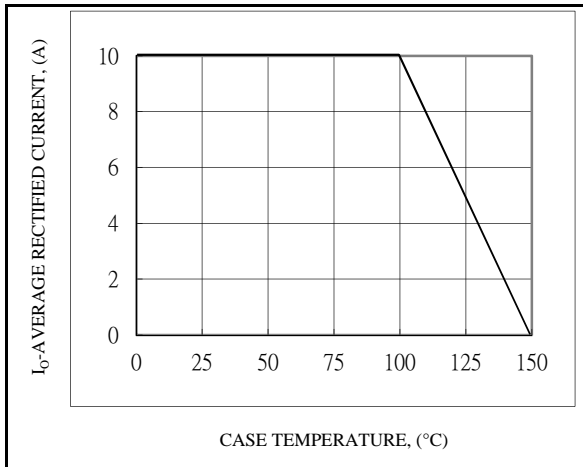


Fig.1-FORWARD CURRENT DERATING CURVE

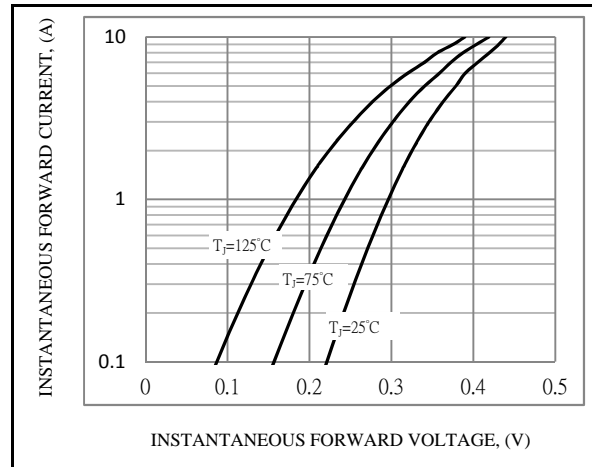


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

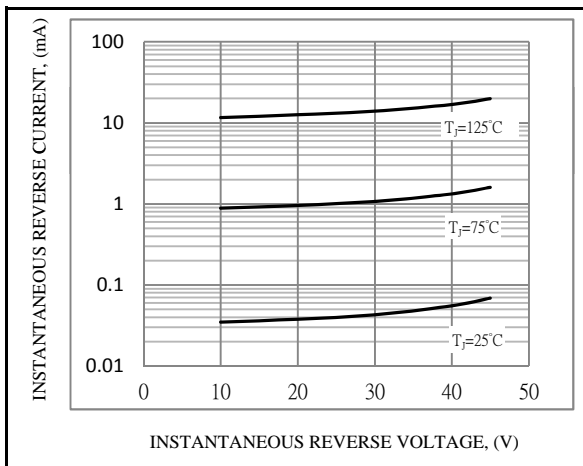


Fig.3-TYPICAL REVERSE CHARACTERISTICS

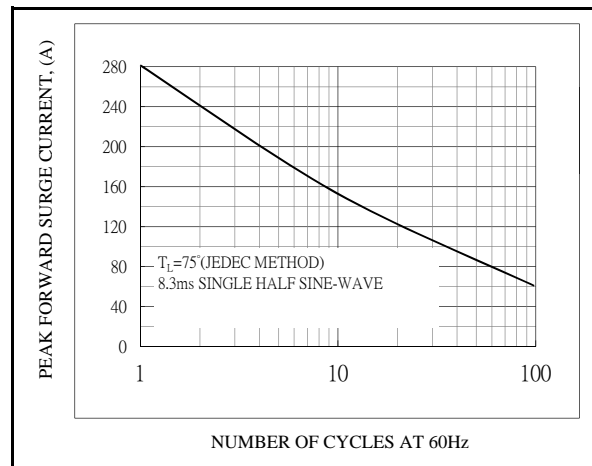
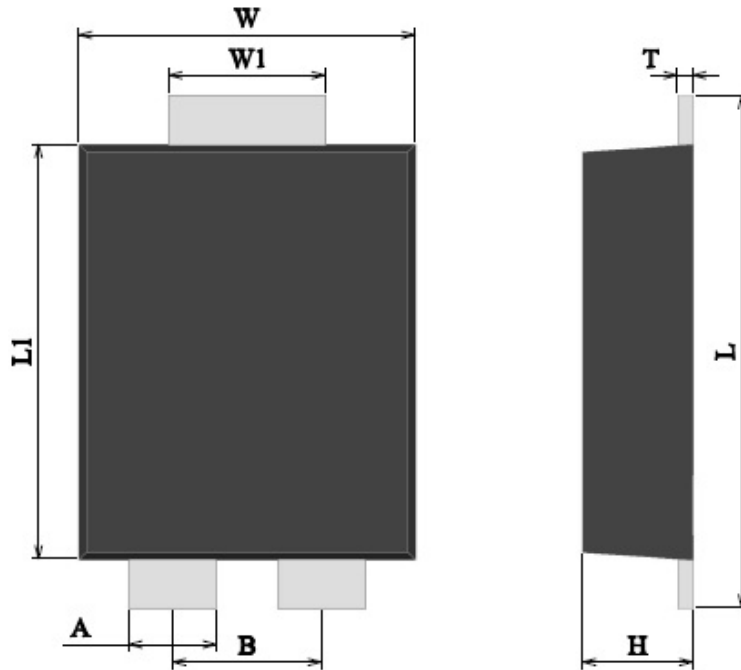


Fig.4-MAXIMUM NON-REPETITIVE SURGE CURRENT

POWERLITE DIMENSION



SYMBOL	DIMENSION IN MILLIMETER		DIMENSION IN INCH	
	MIN	MAX	MIN	MAX
L	6.400	6.600	0.252	0.260
L1	5.200	5.400	0.205	0.213
W	3.900	4.100	0.154	0.161
W1	1.700	1.900	0.067	0.075
A	0.800	1.000	0.031	0.039
B	1.800	1.900	0.071	0.075
H	1.050	1.160	0.041	0.046
T	0.250	0.350	0.010	0.014