

# ESAL01(2x150A)

**100V,200V / 150A**  
**2 in one-package**  
**POWER DIODE MODULE**

## ■ Features

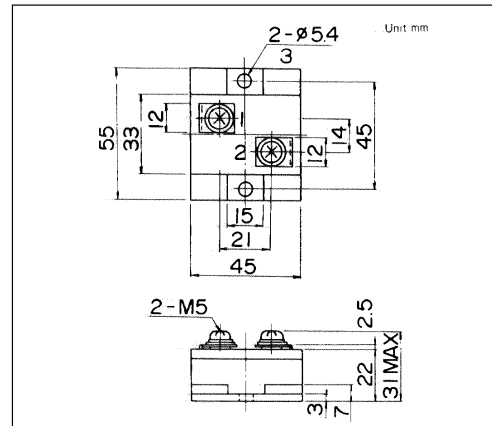
- Glass Passivation Chip
- Variety Connection Menu
- Non-Insulated Type

## ■ Applications

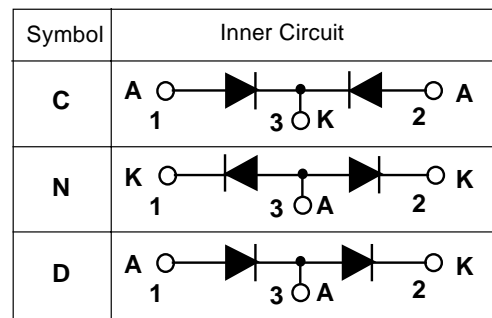
- Battery Chargers
- Free-Wheeling Diode
- General Purpose Rectifiers

## POWER DIODE MODULE

### ■ Outline Drawings, mm



### ■ Inner Circuit Schematic



## ■ Maximum ratings and characteristics

### ● Absolute maximum ratings

Item	Symbol	Conditions	Rating		Unit
			-01	-02	
Repetitive peak reverse voltage	$V_{RRM}$		100	200	V
Non-repetitive peak reverse voltage	$V_{RSM}$		150	250	V
Average output current	$I_{F(AV)}$	50/60Hz Sine wave, $T_c=100^\circ\text{C}$	2 x 150		A
Surge current	$I_{FSM}$	From rated load, Sine wave 10ms	2000		A
$I^2t$	$I^2t$	From rated load	16000		$\text{A}^2\text{s}$
Operating junction temperature	$T_j$		-40 to +150		$^\circ\text{C}$
Storage temperature	$T_{stg}$		-40 to +150		$^\circ\text{C}$
Screw torque		(M5)	3.5 *1		N·m

\*1: Recommendable value : 2.5 to 3.0 N·m(M5)

### ● Electrical characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage drop	$V_{FM}$	$T_j=25^\circ\text{C}$ , $I_{FM}=450\text{A}$			1.35	V
Reverse current	$I_{RRM}$	$T_j=150^\circ\text{C}$ , $V_R=V_{RRM}$			10	mA

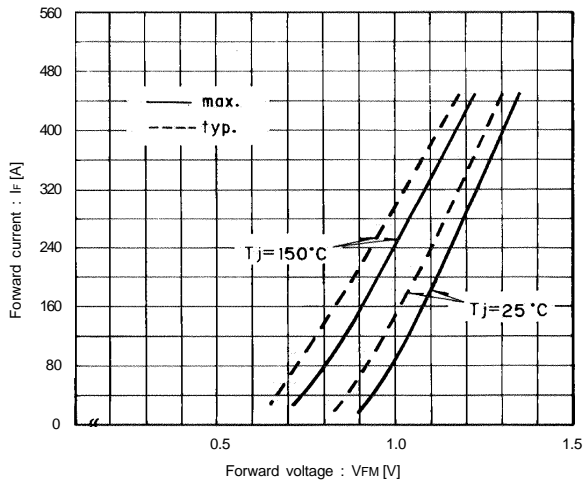
### ● Thermal Characteristics

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Thermal resistance	$R_{th(j-c)}$	Junction to case			0.15	$^\circ\text{C}/\text{W}$
	$R_{th(c-f)}$	the base to cooling fin *			0.05	$^\circ\text{C}/\text{W}$

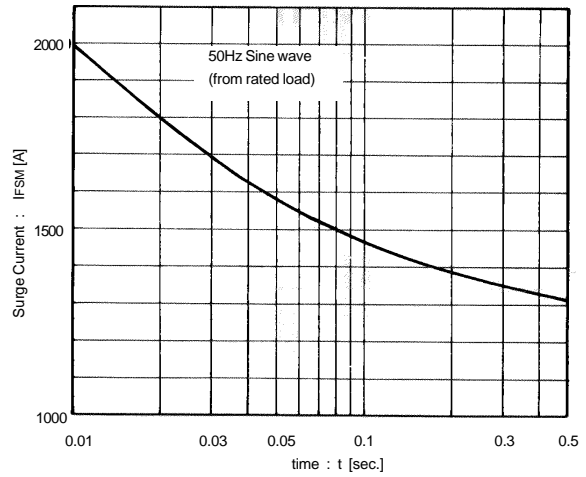
\* : With Thermal Compound

■ Characteristics

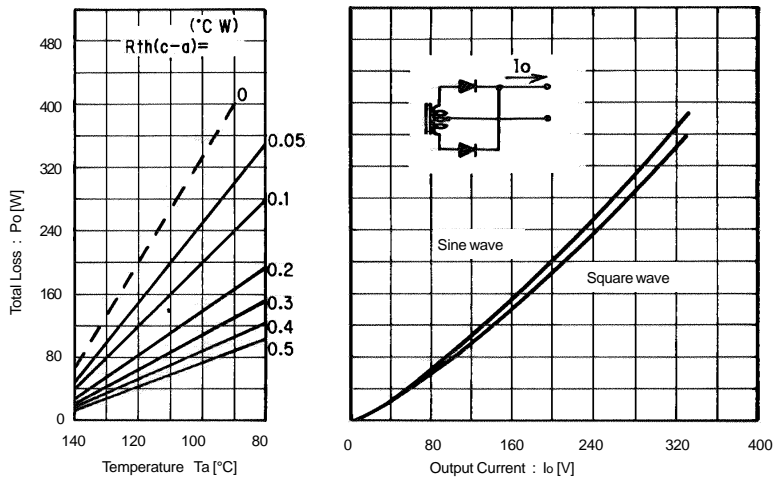
Forward Characteristics



Surge Current



Output Current - Total Loss - Ambient Temperature



Transient Thermal Impedance

