

# 6RI150E(150A)

## POWER DIODE MODULE

600V,800V / 150A

6 in one-package

### Features

- Glass Passivation Chip
- Easy Connection
- Insulated Type

### Applications

- Inverters
- Battery Chargers
- DC Motors
- General Purpose DC Power Supplies

### Maximum ratings and characteristics

#### Absolute maximum ratings

Item	Symbol	Conditions	Rating		Unit
			-060	-080	
Repetitive peak reverse voltage	$V_{RRM}$		600	800	V
Non-repetitive peak reverse voltage	$V_{RSM}$		660	880	V
Average output current	$I_O$	50/60Hz Sine wave, $T_c=105^{\circ}C$	150		A
Surge current	$I_{FSM}$	From rated load, Sine wave 10ms	1500		A
$I^2t$	$I^2t$	From rated load	9000		$A^2s$
Operating junction temperature	$T_j$		-40 to +150		$^{\circ}C$
Storage temperature	$T_{stg}$		-40 to +125		$^{\circ}C$
Isolation voltage	$V_{is}$		AC2000(1min.)		V
Screw torque	Terminals *1		4.0	*1	N·m
	Mountings *2		3.0	*2	N·m

\*1: Recommendable value : 3.0 to 4.0 N·m(M6)

\*2: Recommendable value : 2.0 to 3.0 N·m(M5)

#### Electrical characteristics (Ta=25°C Unless otherwise specified)

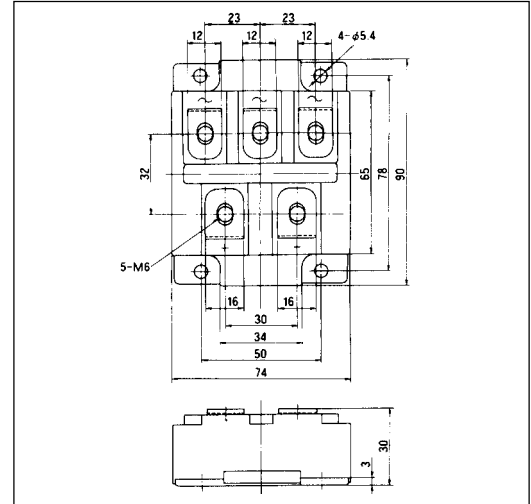
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage drop	$V_{FM}$	$T_j=25^{\circ}C, I_{FM}=150A$			1.25	V
Reverse current	$I_{RRM}$	$T_j=150^{\circ}C, V_R=V_{RRM}$			15	mA

#### Thermal Characteristics

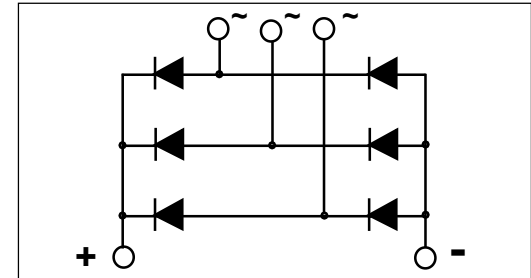
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Thermal resistance	$R_{th(j-c)}$	Junction to case			0.125	$^{\circ}C/W$
	$R_{th(c-f)}$	the base to cooling fin *			0.04	$^{\circ}C/W$

\* : With Thermal Compound

### Outline Drawings, mm

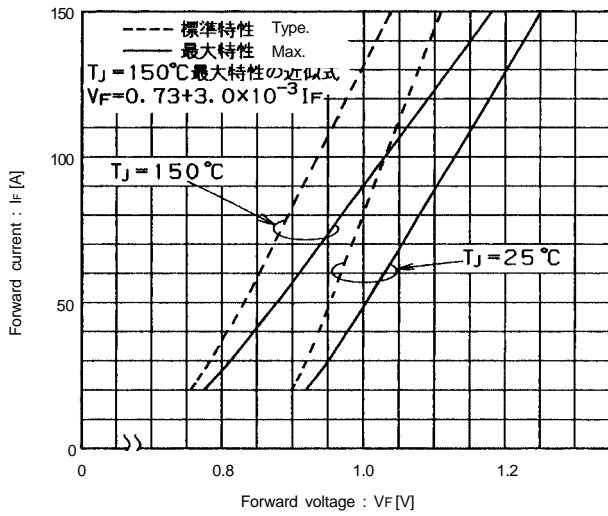


### Inner Circuit Schematic

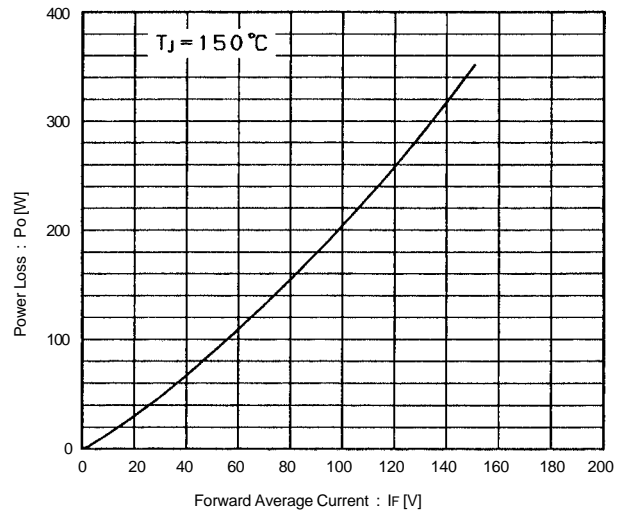


■ Characteristics

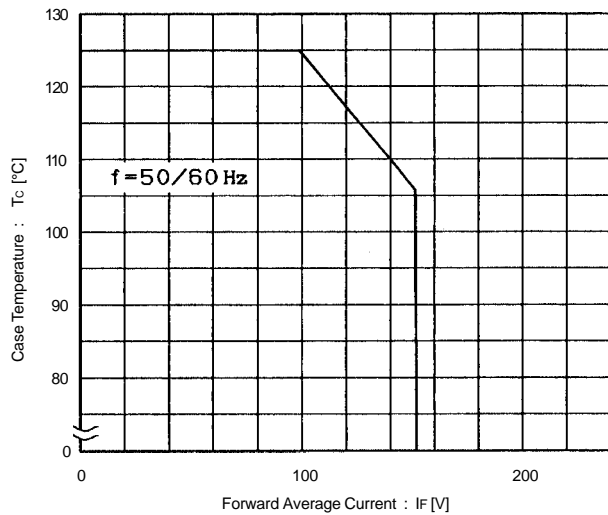
Forward Characteristics



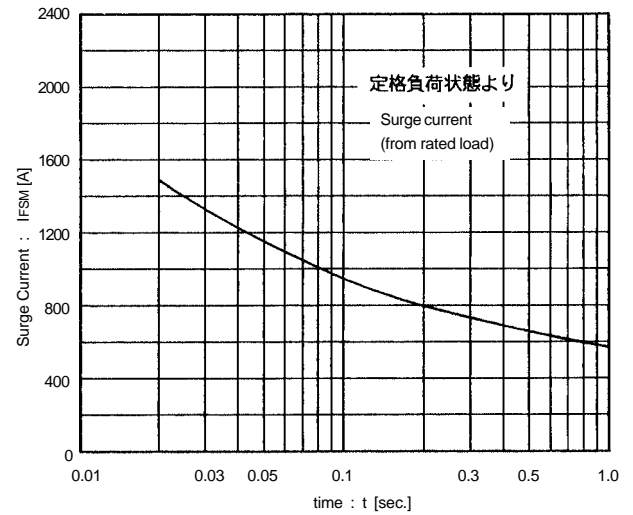
Forward Average Current vs. Power Loss



Forward Average Current vs. Case Temperature



Surge Current



Transient Thermal Impedance

