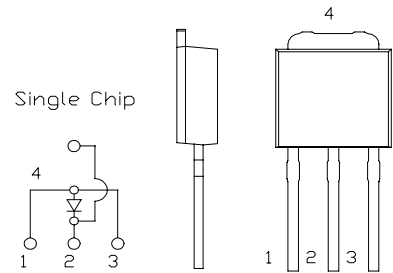


SBD Type : ESH05A15

OUTLINE DRAWING

FEATURES

- *TO-251AA Case
- *High Voltage Low leakage Current
- *Low Forward Voltage Drop
- *Low Power Loss,High Efficiency
- *High Surge Capability
- *Tj=150 °C operation



Maximum Ratings

Approx Net Weight: 0.35g

Rating	Symbol	ESH05A15			Unit
Repetitive Peak Reverse Voltage	V _{RRM}	150			V
Average Rectified Output Current *1	I _O	1.6	Ta=29°C *2	50 Hz half Sine Wave Resistive Load	A
		5.0	Tc=125°C		
RMS Forward Current *1	I _{F(RMS)}	7.85			A
Surge Forward Current *1	I _{FSM}	130	50Hz Half Sine Wave ,1cycle Non-repetitive		A
Operating JunctionTemperature Range	T _{jw}	-40 to +150			°C
Storage Temperature Range	T _{stg}	-40 to +150			°C

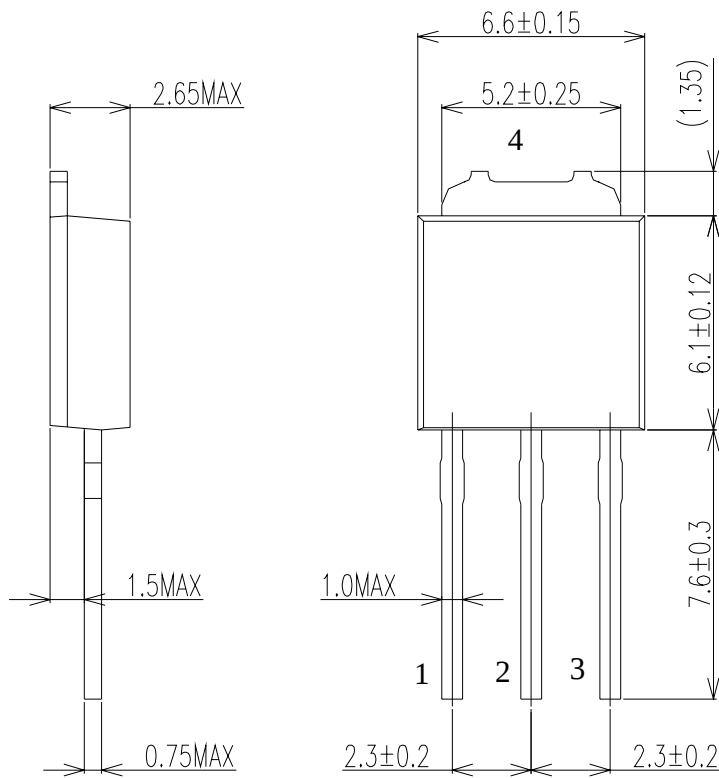
Electrical • Thermal Characteristics

Characteristics		Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current		I_{RM}	$T_j= 25^{\circ}\text{C}$, $V_{RM}= V_{RRM}$	-	-	1	mA
Peak Forward Voltage		V_{FM}	$T_j= 25^{\circ}\text{C}$, $I_{FM}= 5\text{ A}$	-	-	0.88	V
Thermal Resistance	Junction to Ambient	$R_{th(j-a)}$	P.C.Board Mounted *2	-	-	80	$^{\circ}\text{C}/\text{W}$
	Junction to Case	$R_{th(j-c)}$	-	-	-	5	$^{\circ}\text{C}/\text{W}$

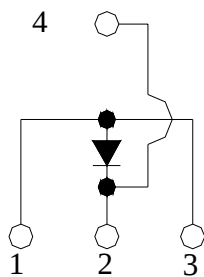
*1: Anode Terminals 1 and 3 Connected

*2: P.C. Board mounted, Print Land=20x20mm

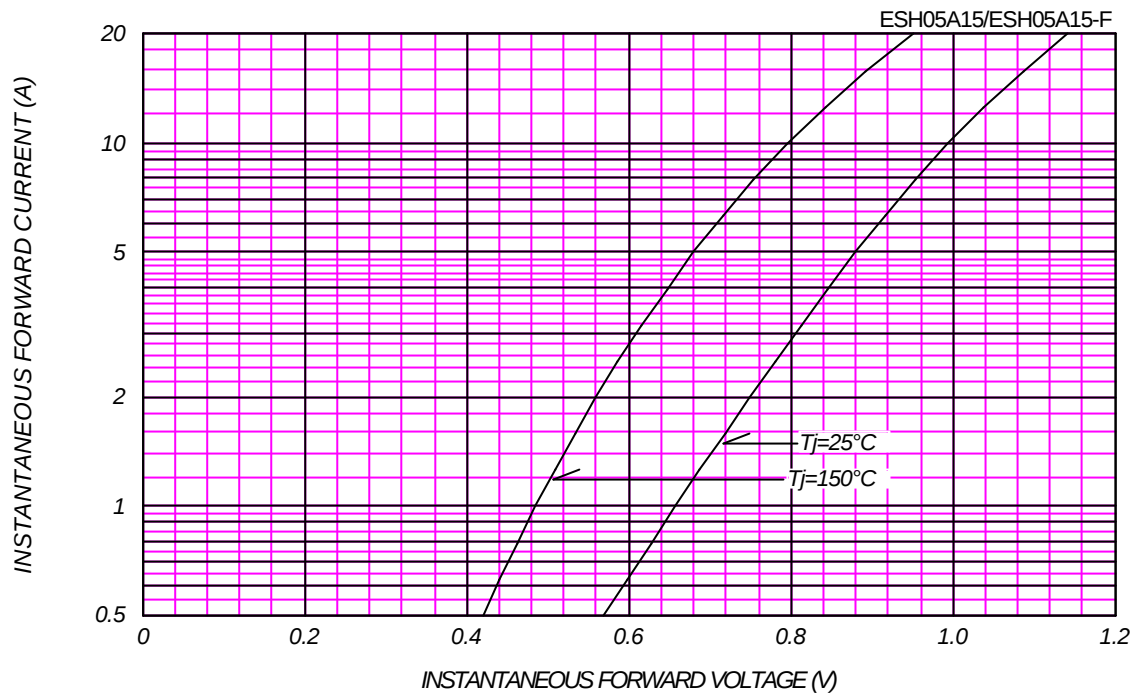
ESH05A15 OUTLINE DRAWING (Dimension in mm)



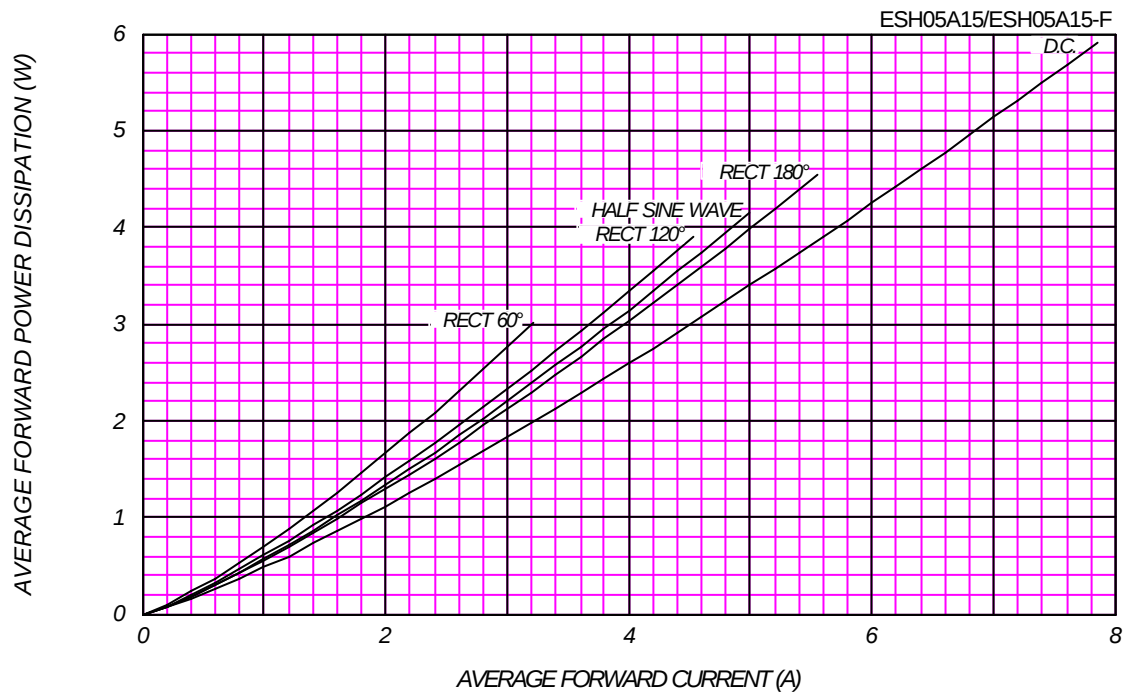
Single



FORWARD CURRENT VS. VOLTAGE



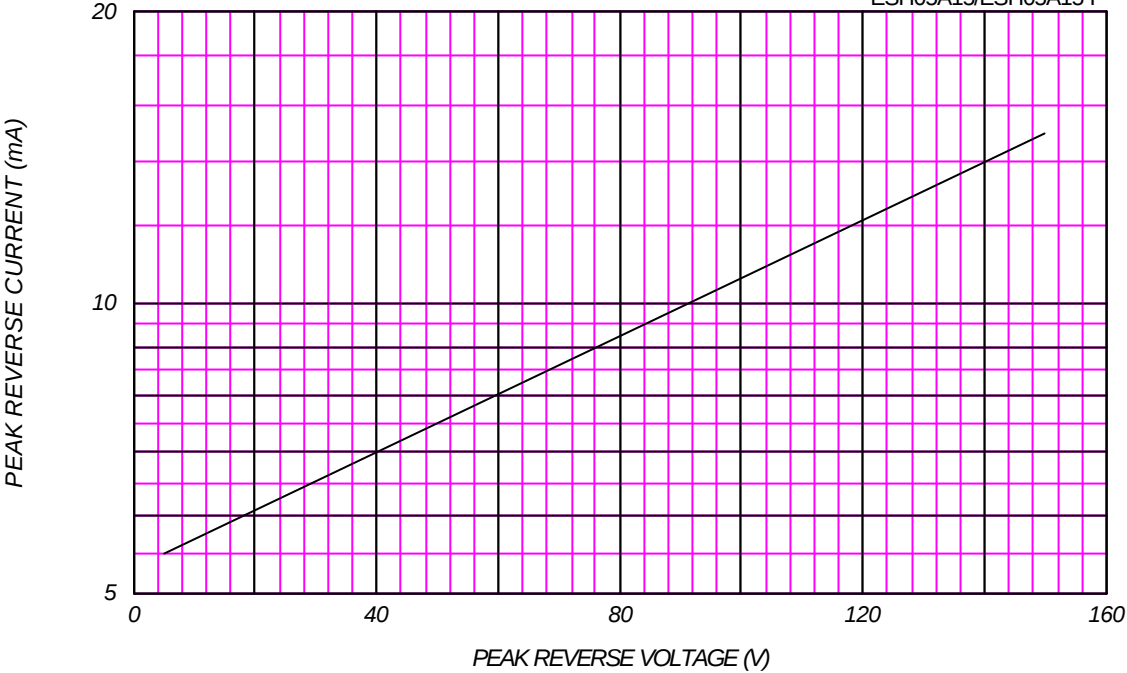
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

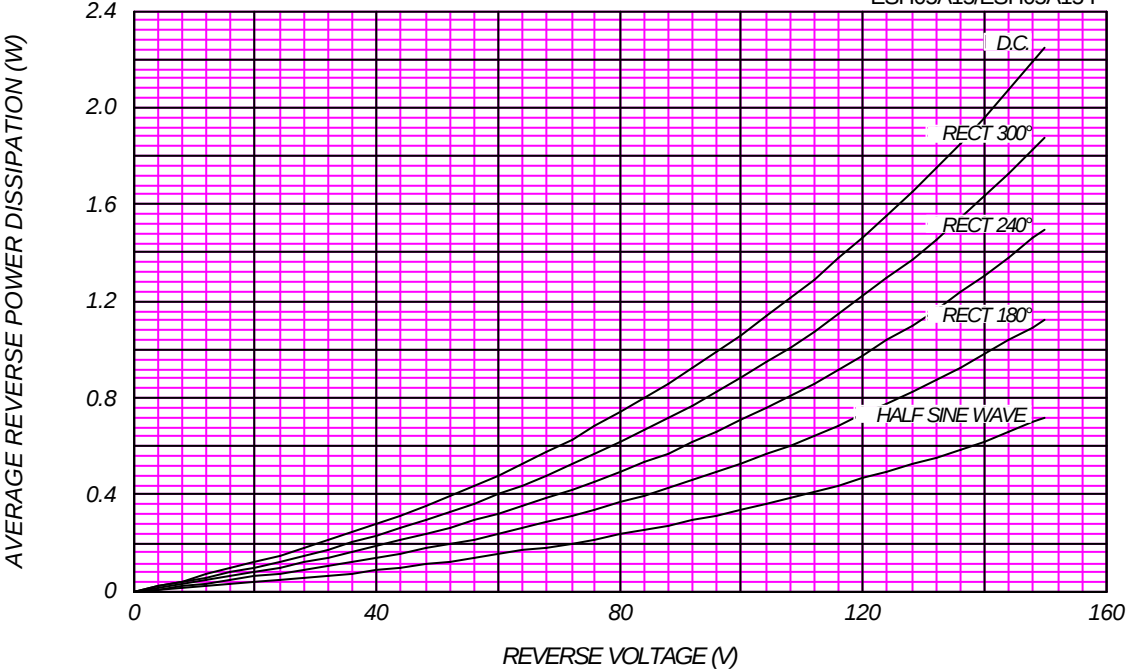
Tj= 150 °C

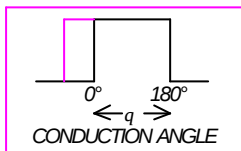
ESH05A15/ESH05A15-F



AVERAGE REVERSE POWER DISSIPATION

ESH05A15/ESH05A15-F

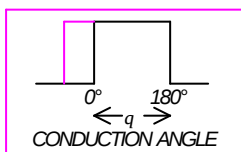
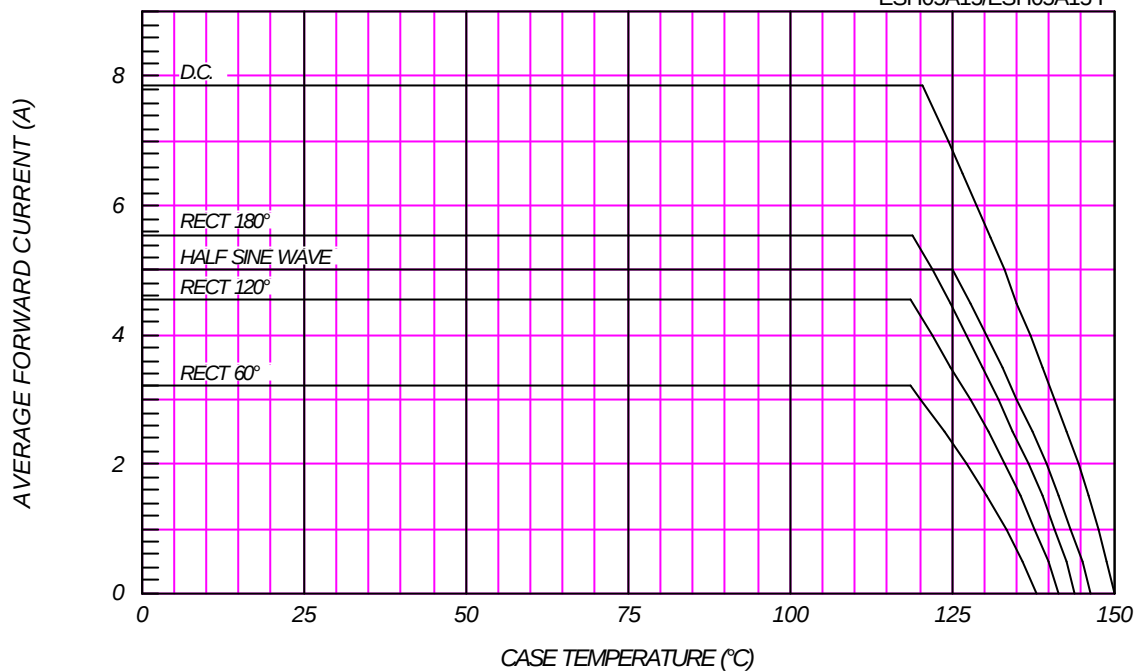




AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=150V$

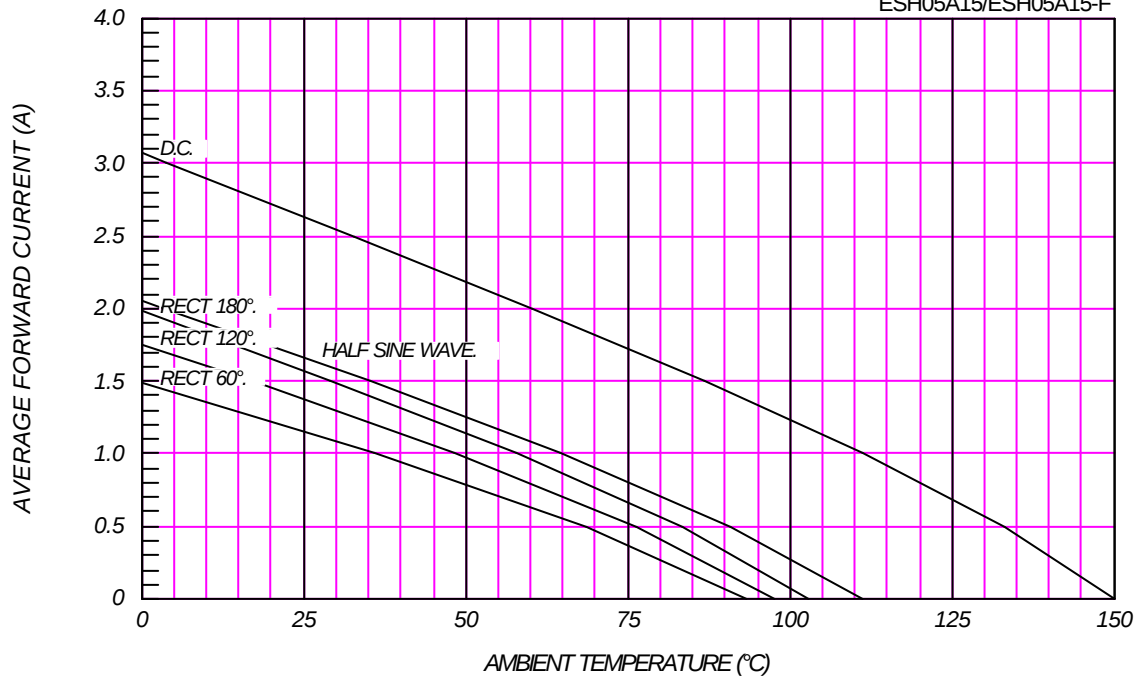
ESH05A15/ESH05A15-F



AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

P.C. Board mounted (Print land= $20 \times 20mm$)

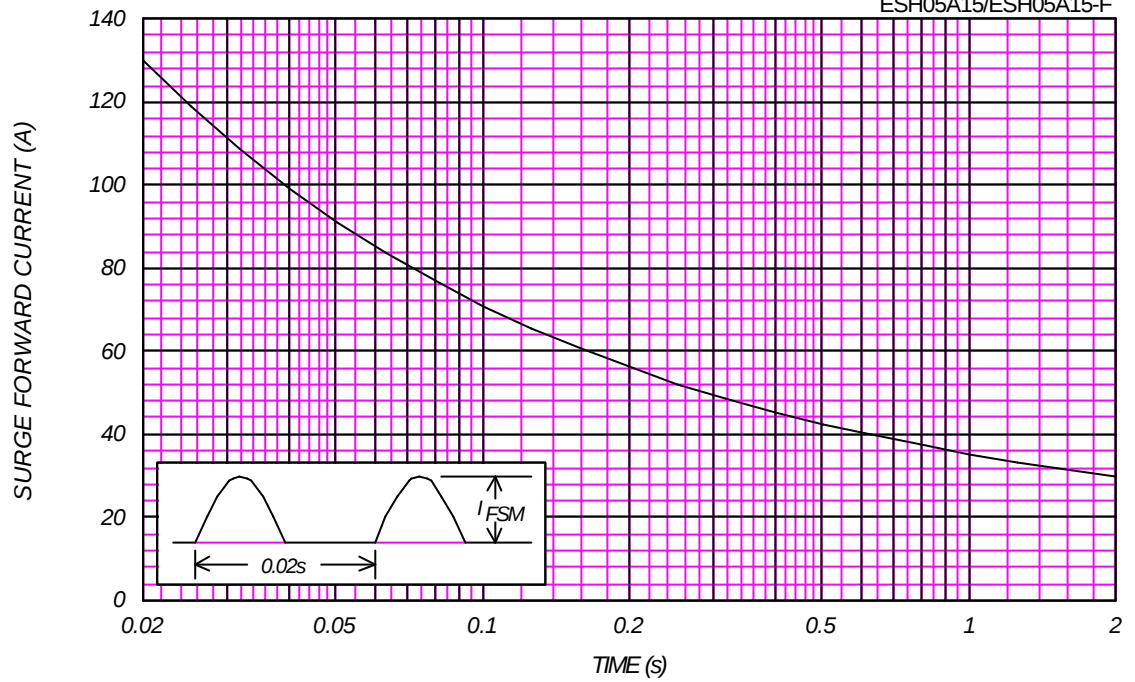
ESH05A15/ESH05A15-F



SURGE CURRENT RATINGS

f=50Hz,Sine Wave,Non-Repetitive,No Load

ESH05A15/ESH05A15-F



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

T_j=25° C,V_m=20mV_{RMS},f=100kHz,Typical Value

ESH05A15/ESH05A15-F

