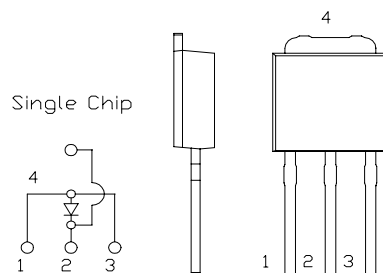


SBD Type : ESH05A15

OUTLINE DRAWING

FEATURES

- *TO-251AA Case
- *High Voltage Low leakage Current
- *Low Forward Voltage Drop
- *Low Power Loss, High Efficiency
- *High Surge Capability
- *T_j=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	T _a =29°C *2	50 Hz half Sine Wave Resistive Load	A
		5.0	T _c =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 Junction Temperature Range	T _{jw}	-40 to +150		°C	
Storage Temperature Range	T _{stg}	-40 to +150		°C	

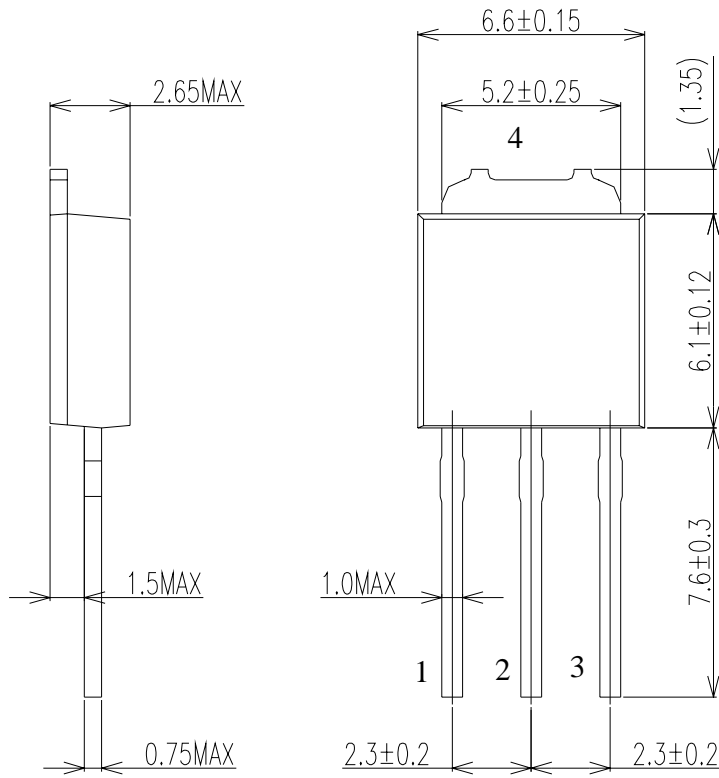
Electrical • Thermal Characteristics

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I _{RM}	T _j = 25°C, V _{RM} = V _{RRM}	-	-	1	mA
Peak Forward Voltage	V _{FM}	T _j = 25°C, I _{FM} = 5 A	-	-	0.88	V
Thermal Resistance	Junction to Ambient	R _{th(j-a)}	P.C.Board Mounted *2		80	°C/W
	Junction to Case	R _{th(j-c)}	-		5	°C/W

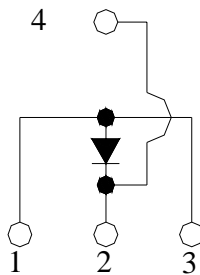
*1: Anode Terminals 1 and 3 Connected

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

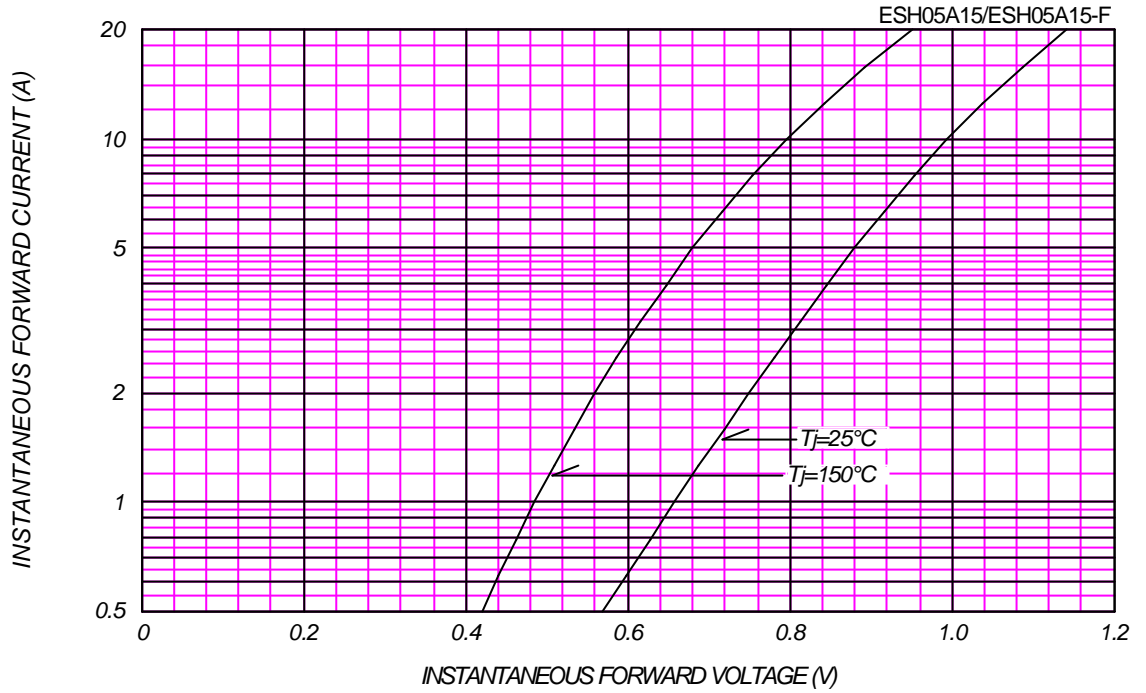
ESH05A15 OUTLINE DRAWING (Dimension in mm)



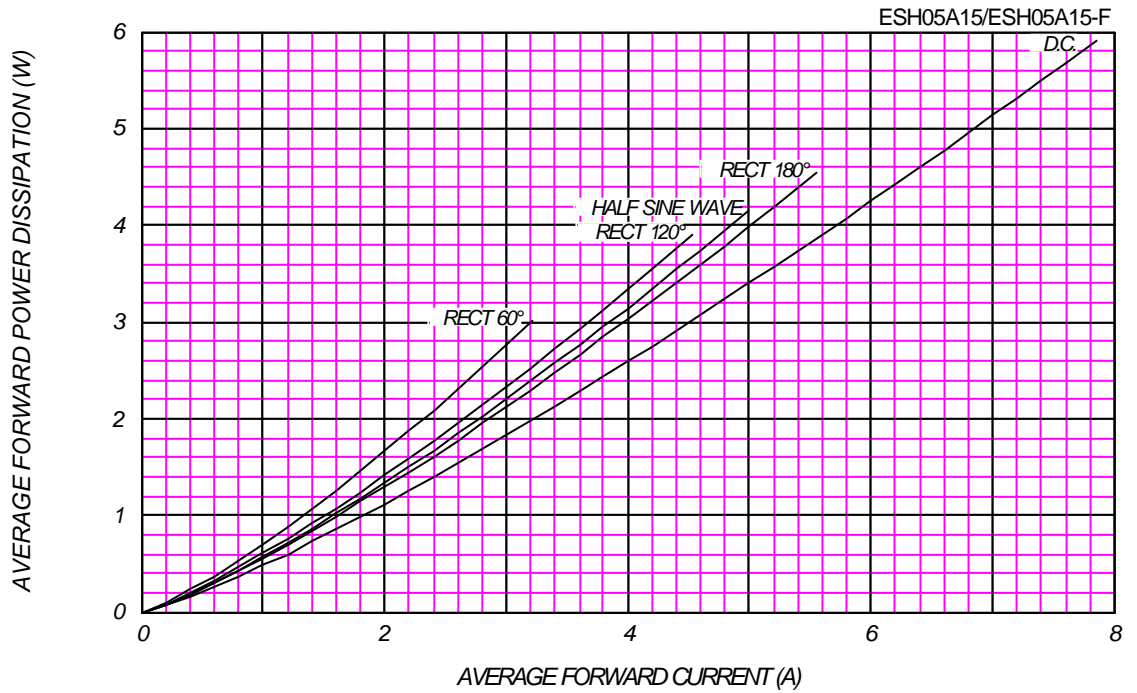
Single



FORWARD CURRENT VS. VOLTAGE



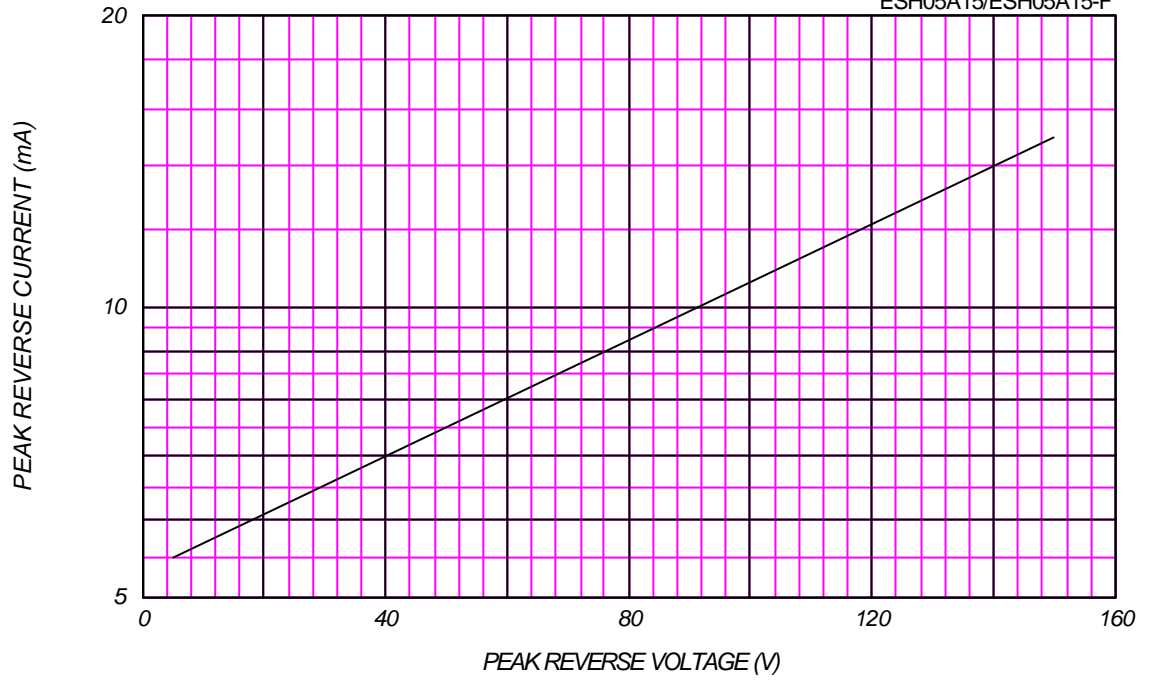
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

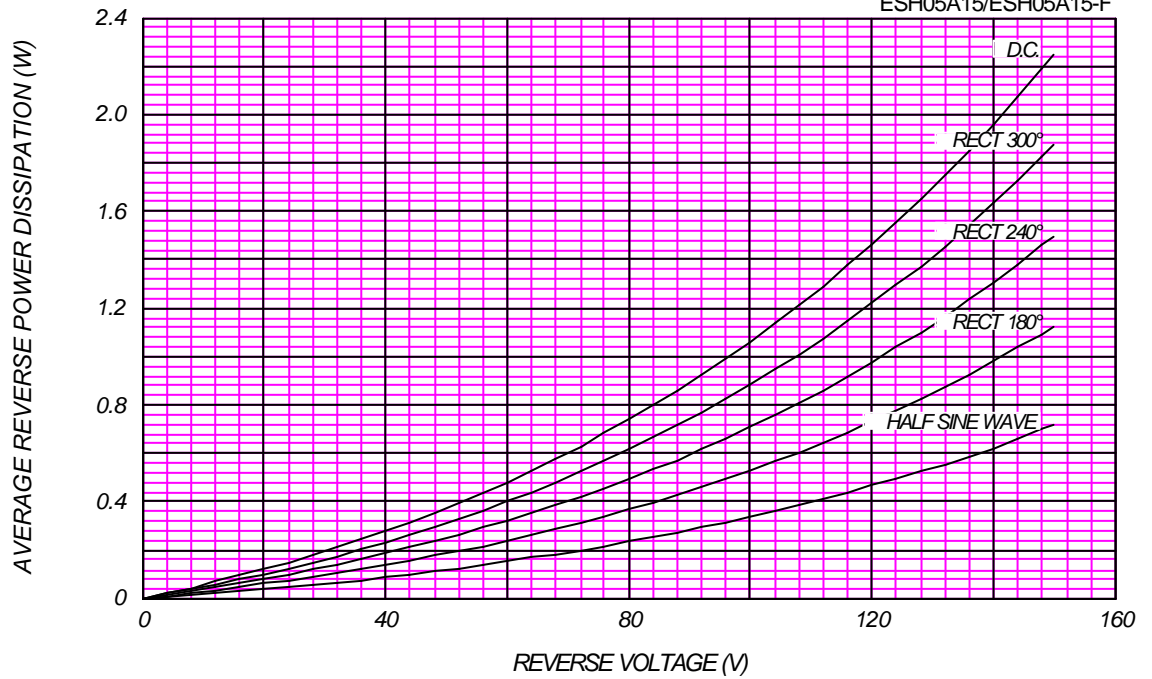
$T_j = 150\text{ }^\circ\text{C}$

ESH05A15/ESH05A15-F



AVERAGE REVERSE POWER DISSIPATION

ESH05A15/ESH05A15-F

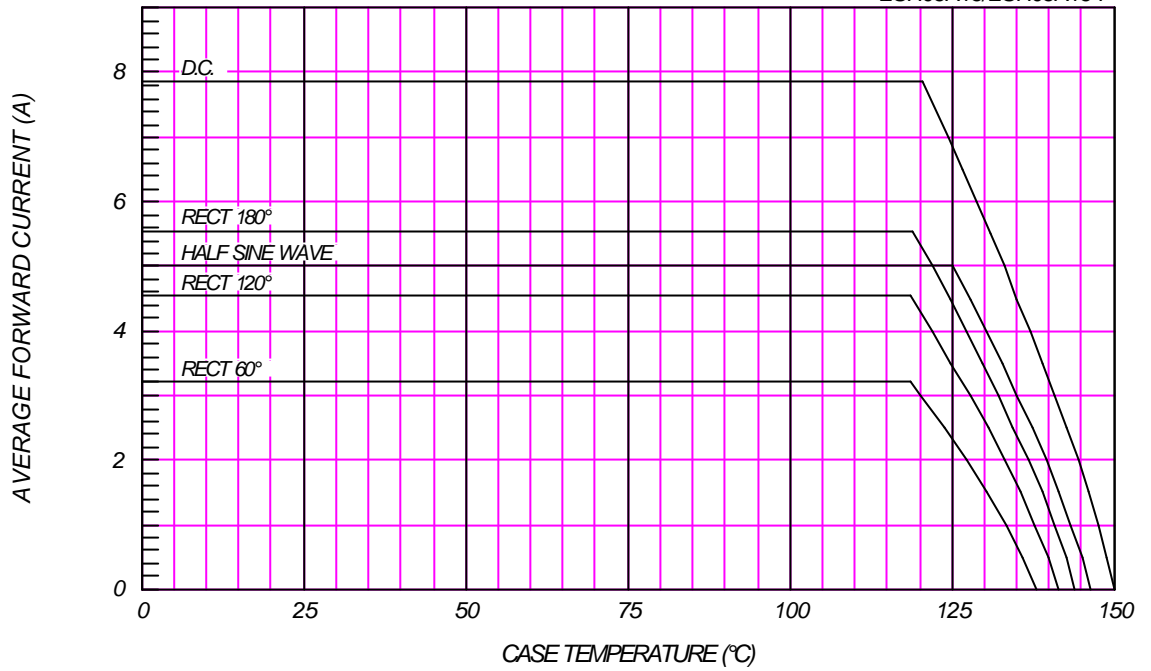




AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM} = 150V$

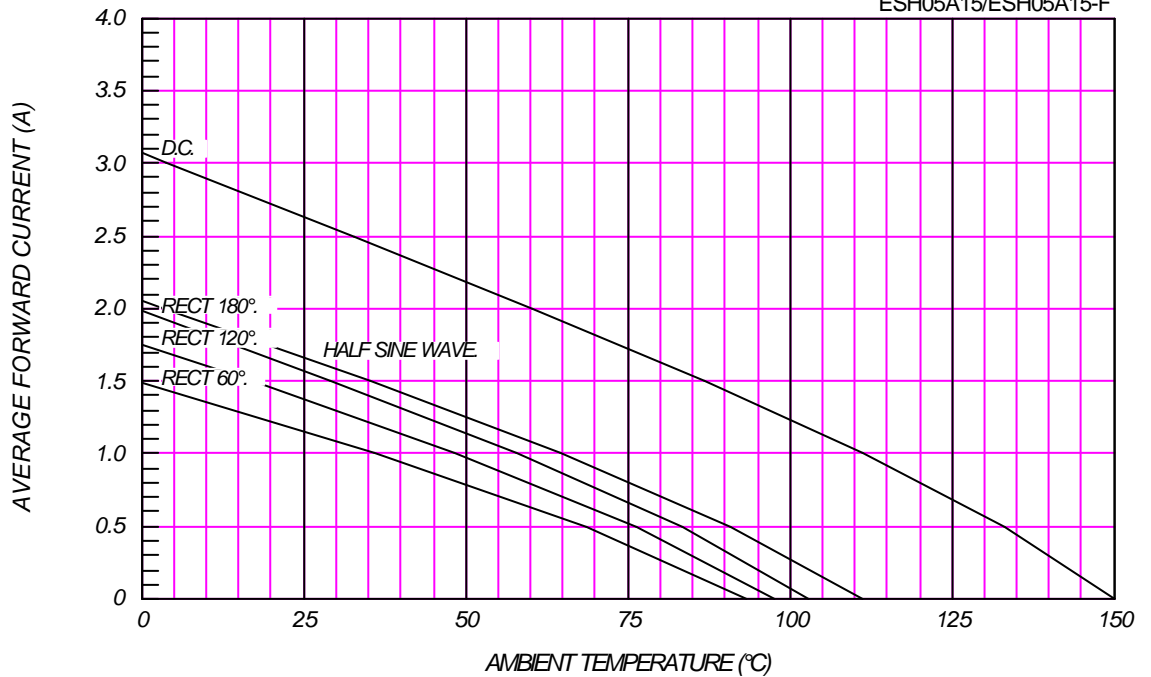
ESH05A15/ESH05A15-F



AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

P.C. Board mounted (Print land=20x20mm)

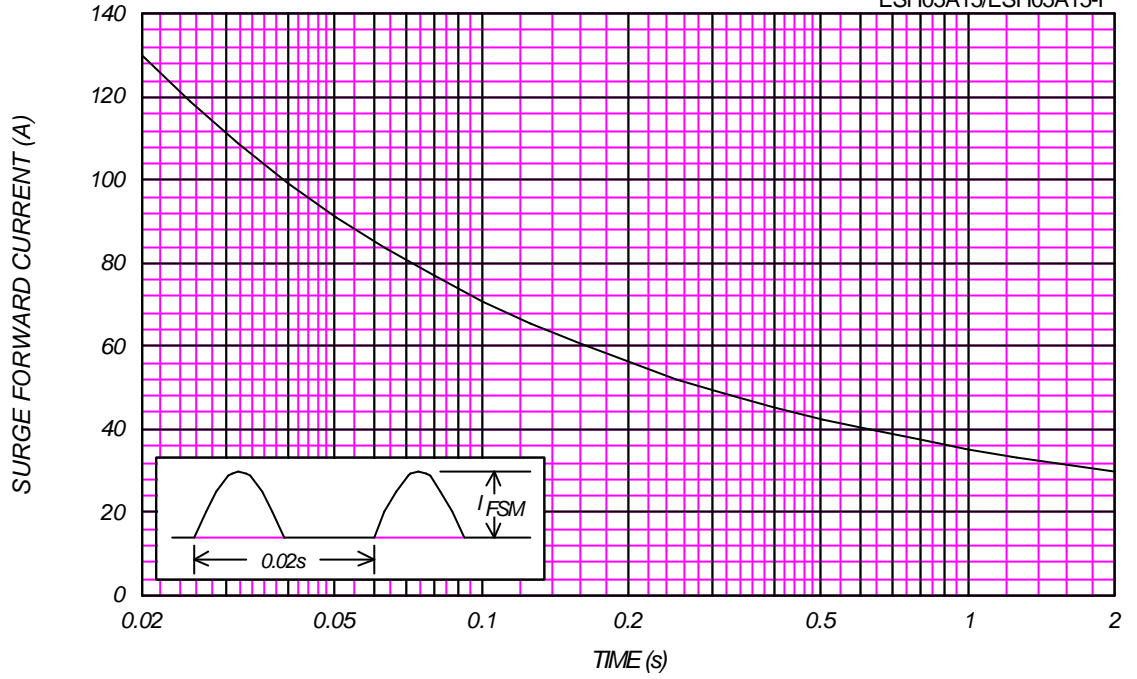
ESH05A15/ESH05A15-F



SURGE CURRENT RATINGS

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

ESH05A15/ESH05A15-F



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

$T_j=25^\circ\text{C}, V_m=20\text{mV}_{\text{RMS}}, f=100\text{kHz}$, Typical Value

ESH05A15/ESH05A15-F

