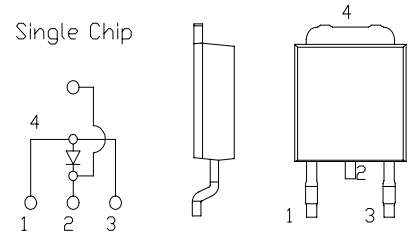


SBD Type : ESH05A15-F

OUTLINE DRAWING

FEATURES

- *TO-252AA Case, Surface Mounting Device
- *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:0.30g

Rating	Symbol	ESH05A15-F		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	A
		5.0	Tc=125°C Resistive Load	
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

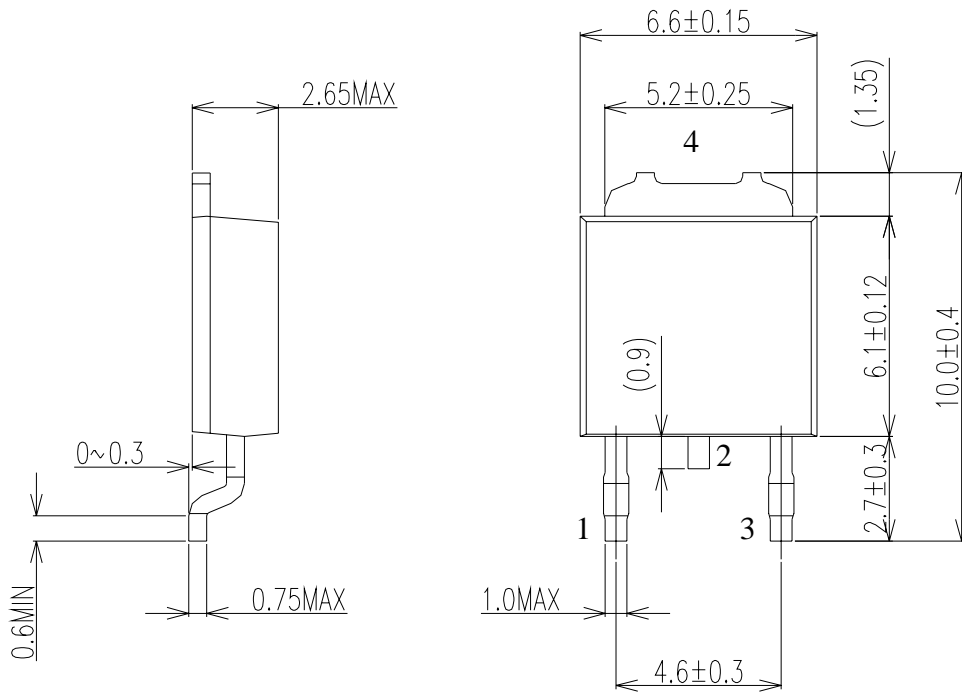
Electrical • Thermal Characteristics

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

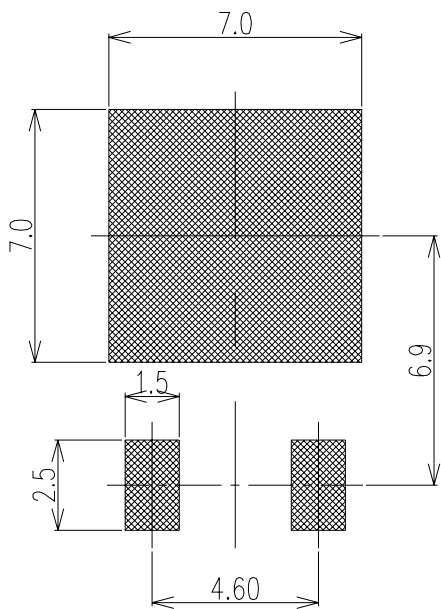
*1: Anode Terminals 1 and 3 Connected

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

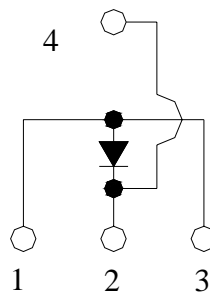
ESH05A15-F OUTLINE DRAWING (Dimension in mm)



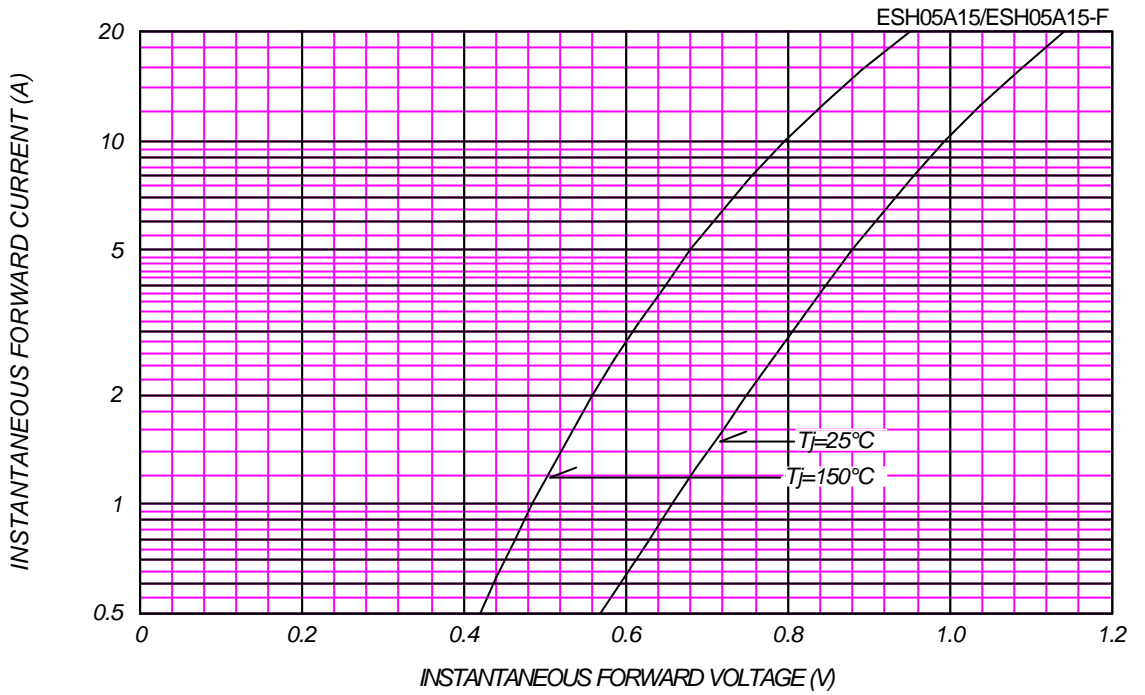
Soldering PAD



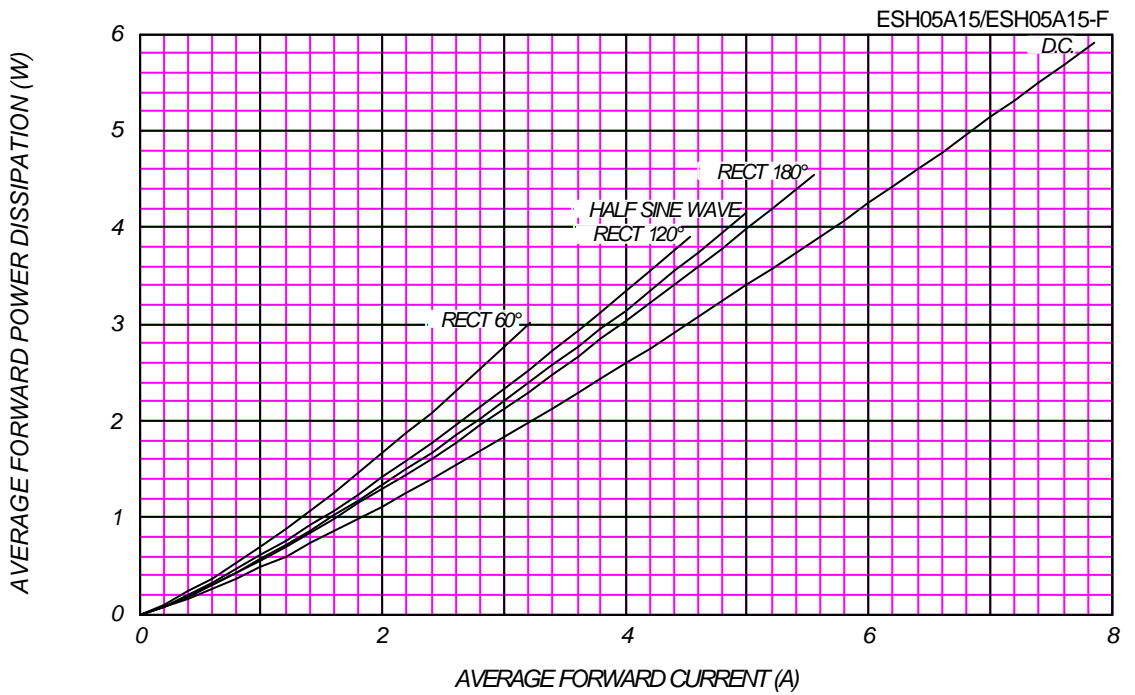
Single



FORWARD CURRENT VS. VOLTAGE



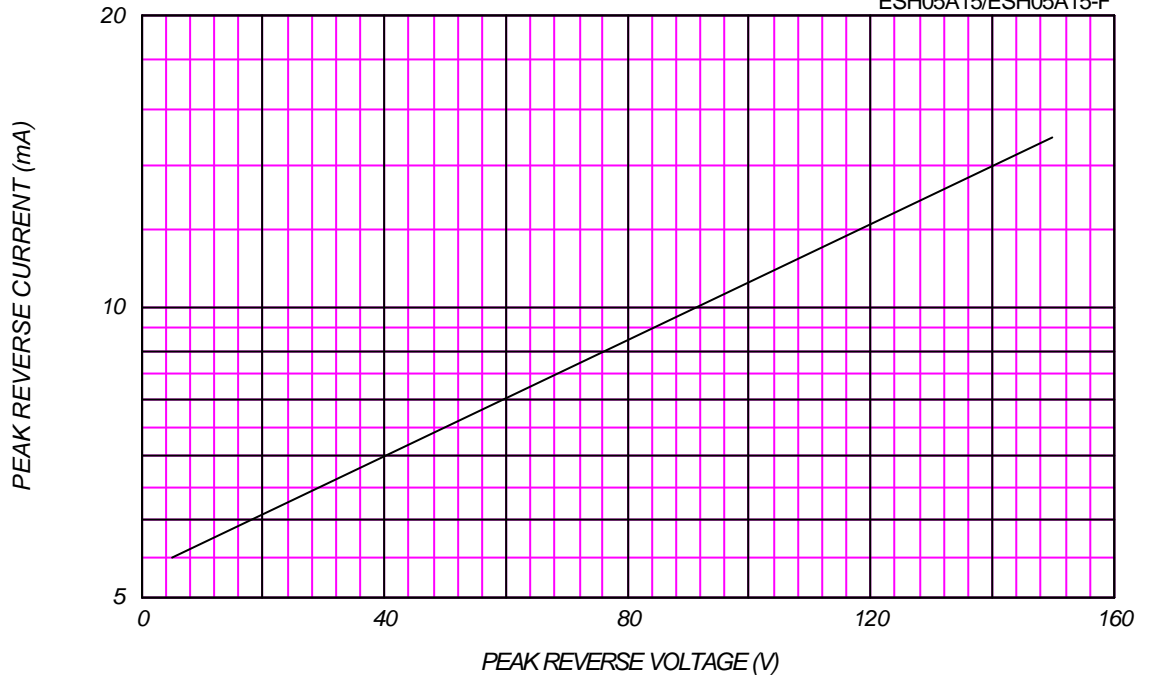
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

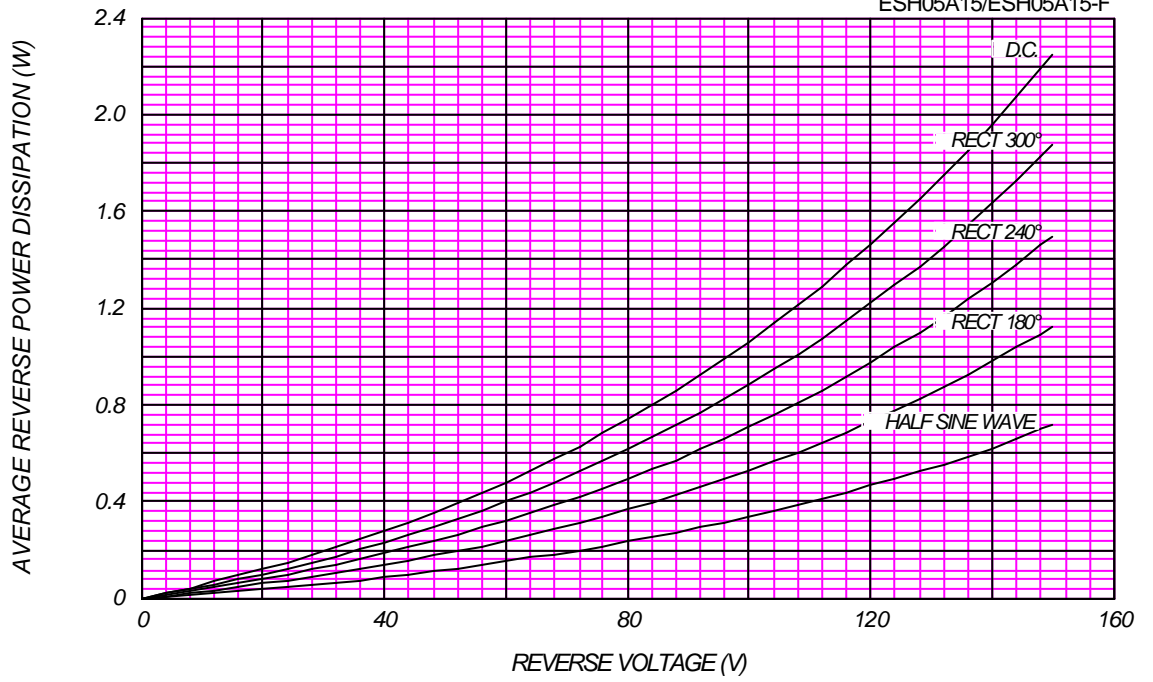
T_j = 150 °C

ESH05A15/ESH05A15-F



AVERAGE REVERSE POWER DISSIPATION

ESH05A15/ESH05A15-F

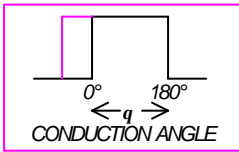
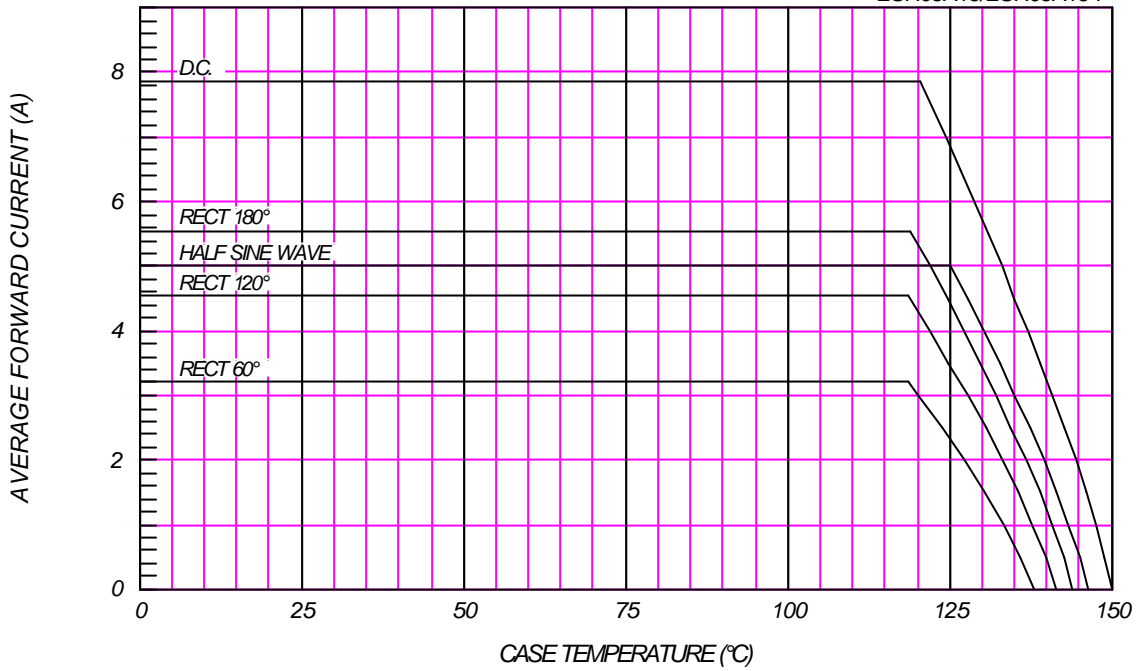




AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM} = 150V$

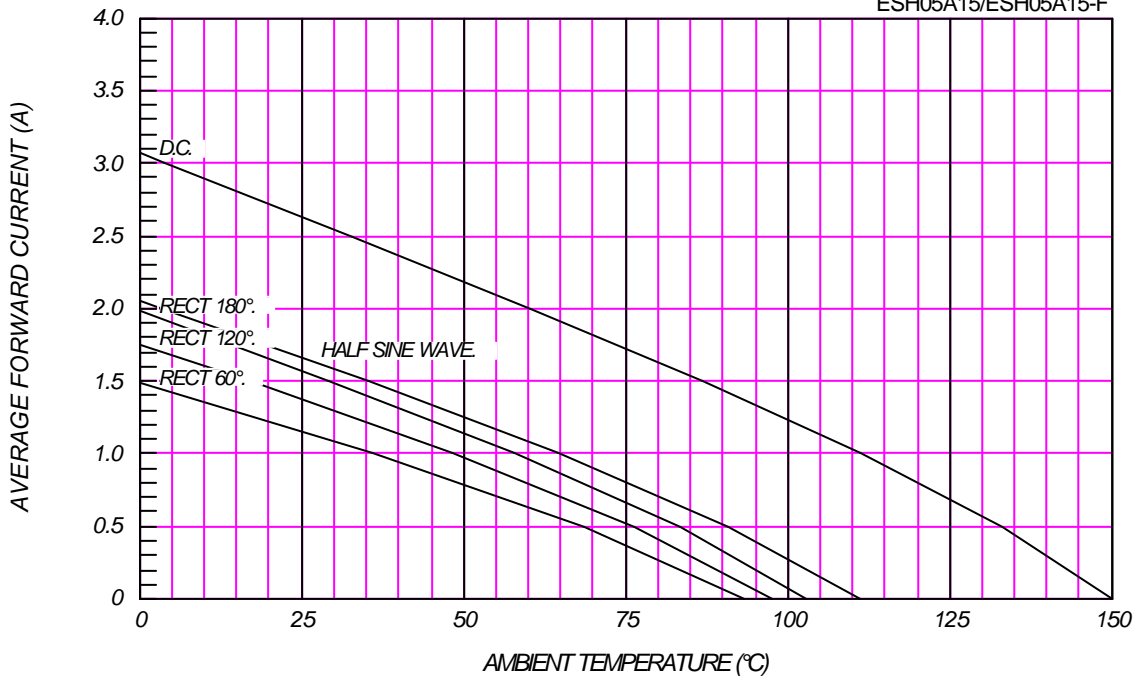
ESH05A15/ESH05A15-F



AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

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

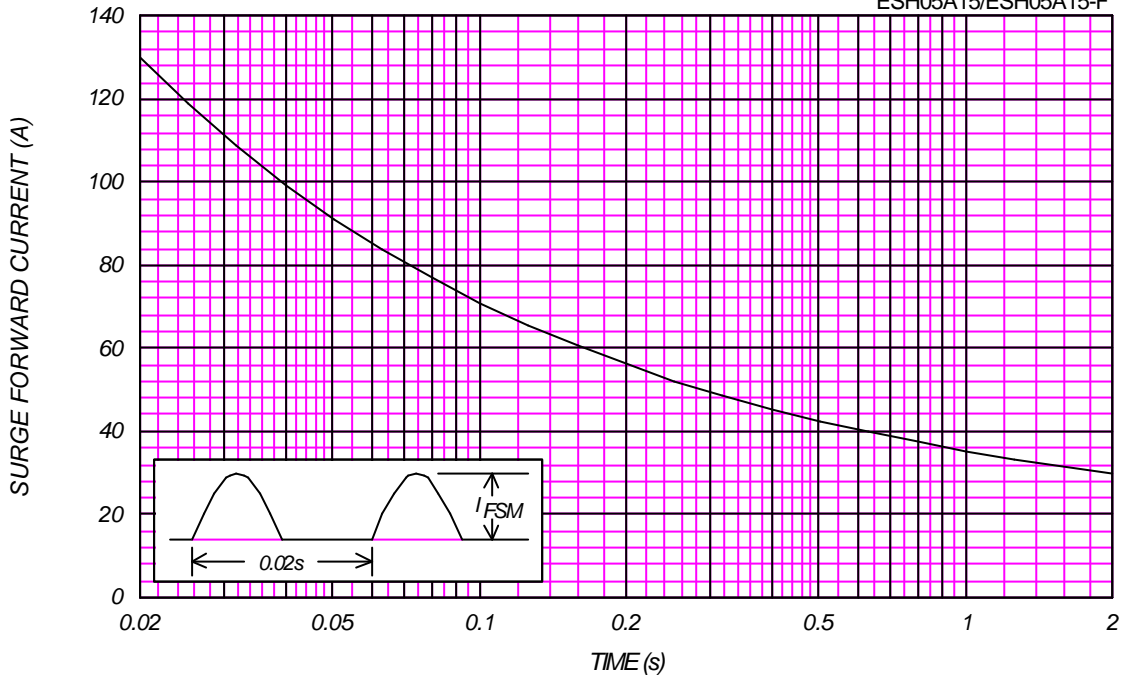
ESH05A15/ESH05A15-F



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

