

SBD Type : EP10HY03

1A 30V Tj:150°C

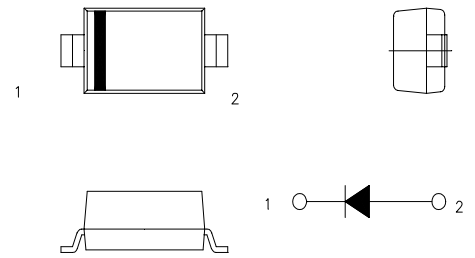
FEATURES

- * JEDEC SOD-123 Package
- * Very Low profile 1.1mm Max
- * Extremely Low Forward Voltage Drop
- * Low Power Loss,High Efficiency
- * High Surge Capability
- * Low Thermal Resistance
- * Packaged in 8mm Tape and Reel

APPLICATIONS

- * For Protection use of Battery Reverse Connection

OUTLINE DRAWING



Maximum Ratings

Approx Net Weight:0.011g

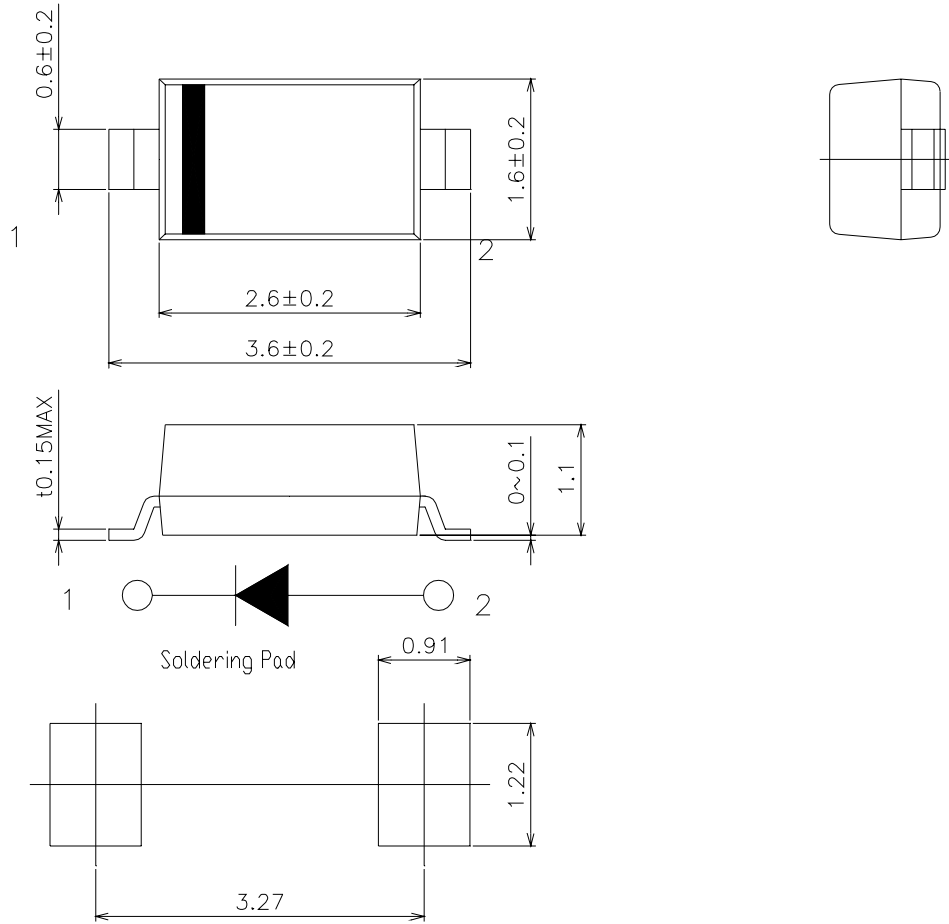
Rating	Symbol	EP10HY03		Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30		V
Direct Forward Current	I_{dc}	1.0	$T_l=120^\circ\text{C}$	Direct Current A
		1.0	$T_a=34^\circ\text{C} *1$	
Average Rectified Output Current	I_O	0.7	$T_l=125^\circ\text{C} V_{RM}=0V$	Rectangular Current A
		0.6	$T_a=53^\circ\text{C} *1 V_{RM}=0V$	
Surge Forward Current	I_{FSM}	12	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

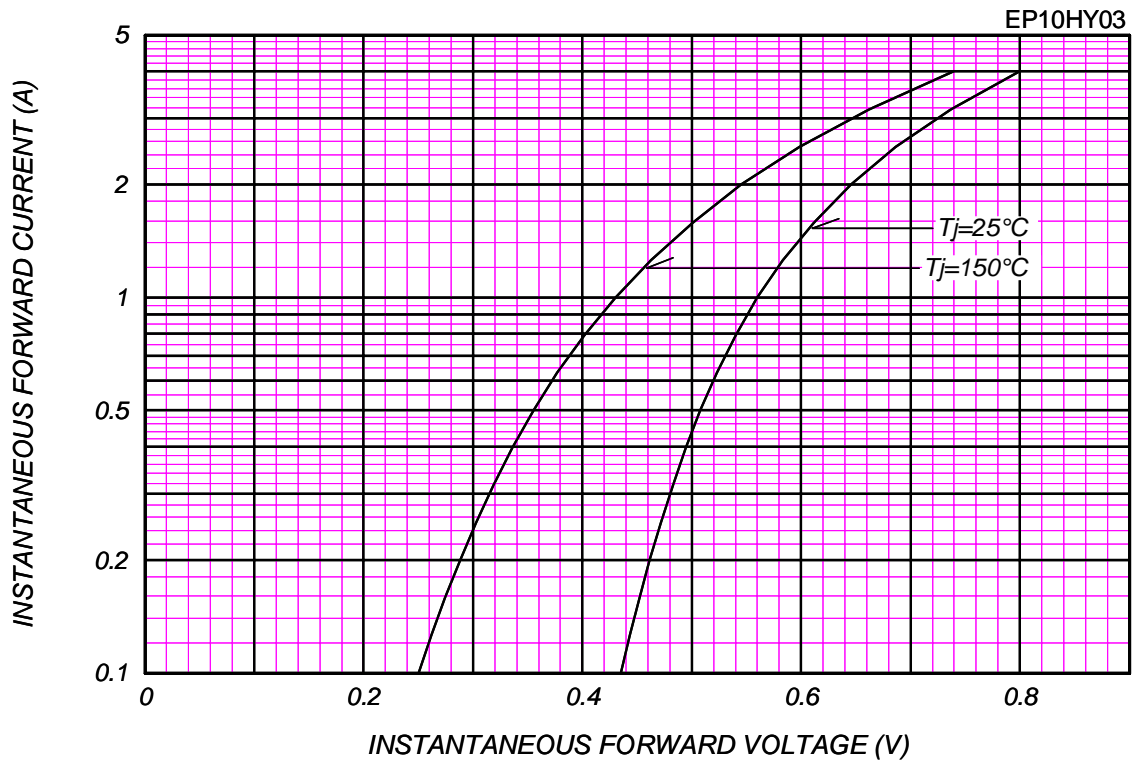
Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	$T_j= 25^\circ\text{C}, V_{RM}= V_{RRM}$	-	-	0.5	mA
Peak Forward Voltage	V_{FM}	$T_j= 25^\circ\text{C}, I_{FM}= 1.0A$	-	-	0.56	V
Thermal Resistance	$R_{th(j-a)}$	Junction to Ambient *1	-	-	270	°C /W
	$R_{th(j-l)}$	Junction to Lead	-	-	70	

*1 Glass Epoxy Substrate Mounted (Soldering Lands=1x1mm,Both Sides)
(Tl: Lead Temperature)

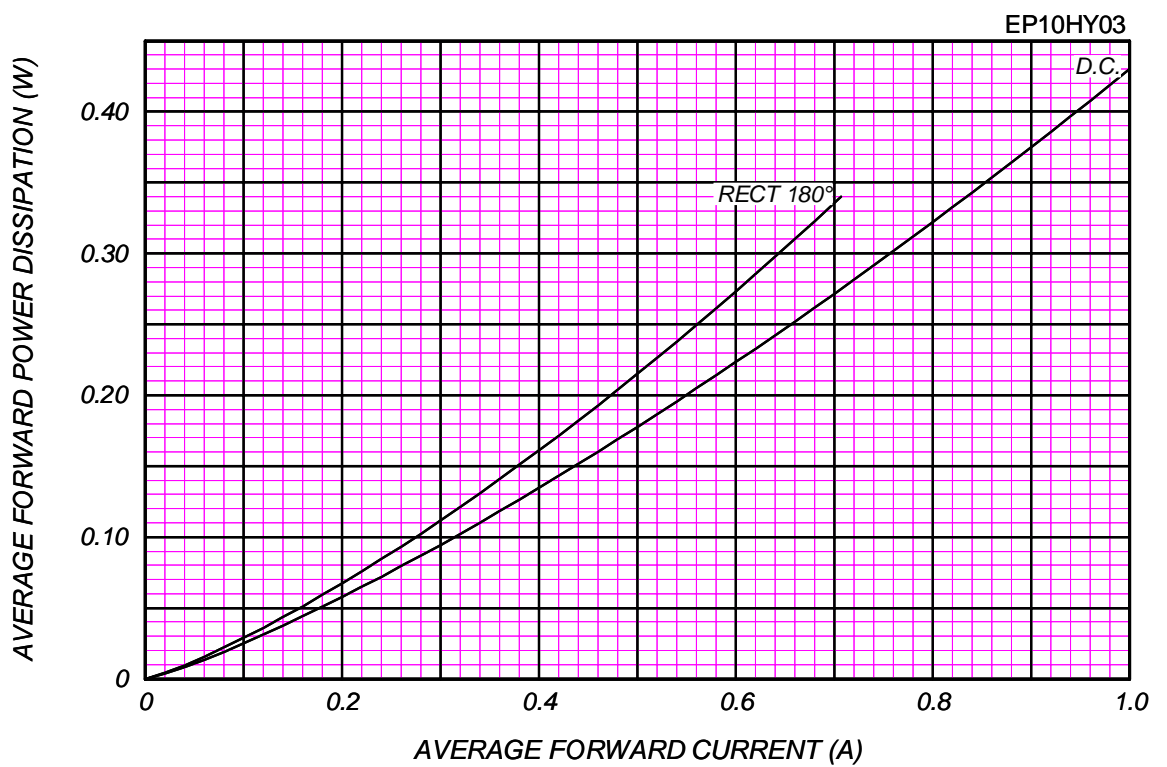
EP10HY03 OUTLINE DRAWING (Dimensions in mm)



FORWARD CURRENT VS. VOLTAGE



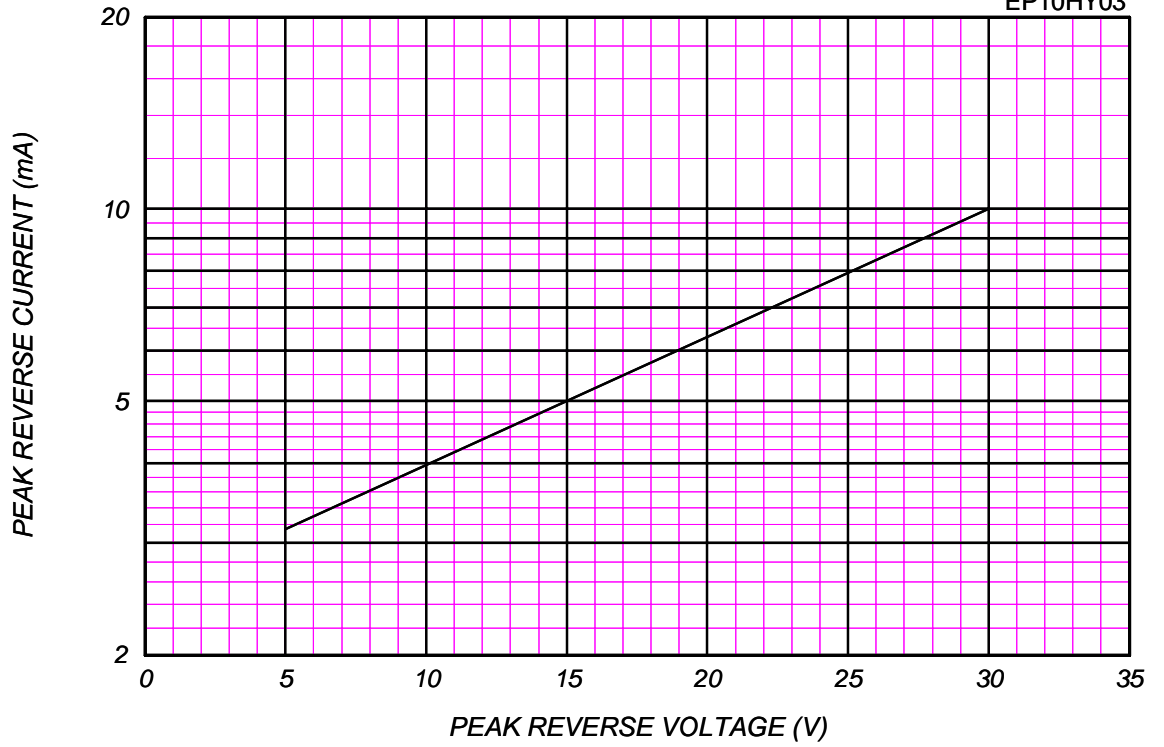
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

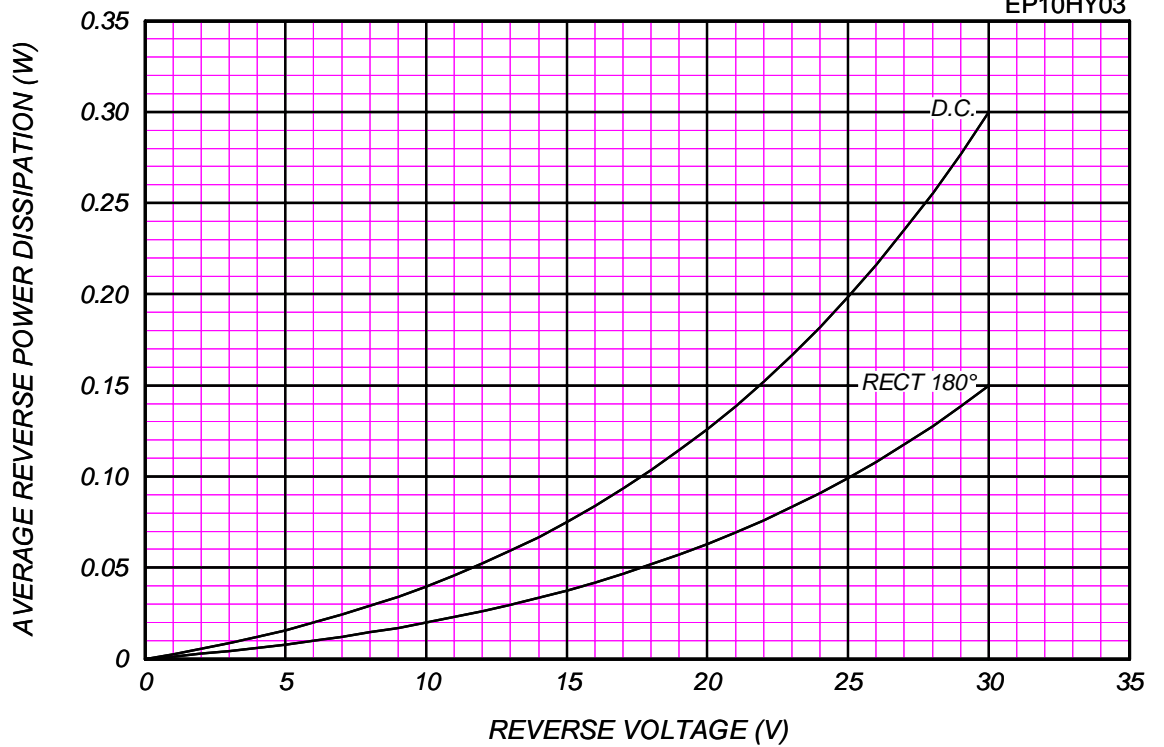
T_j = 150 °C

EP10HY03



AVERAGE REVERSE POWER DISSIPATION

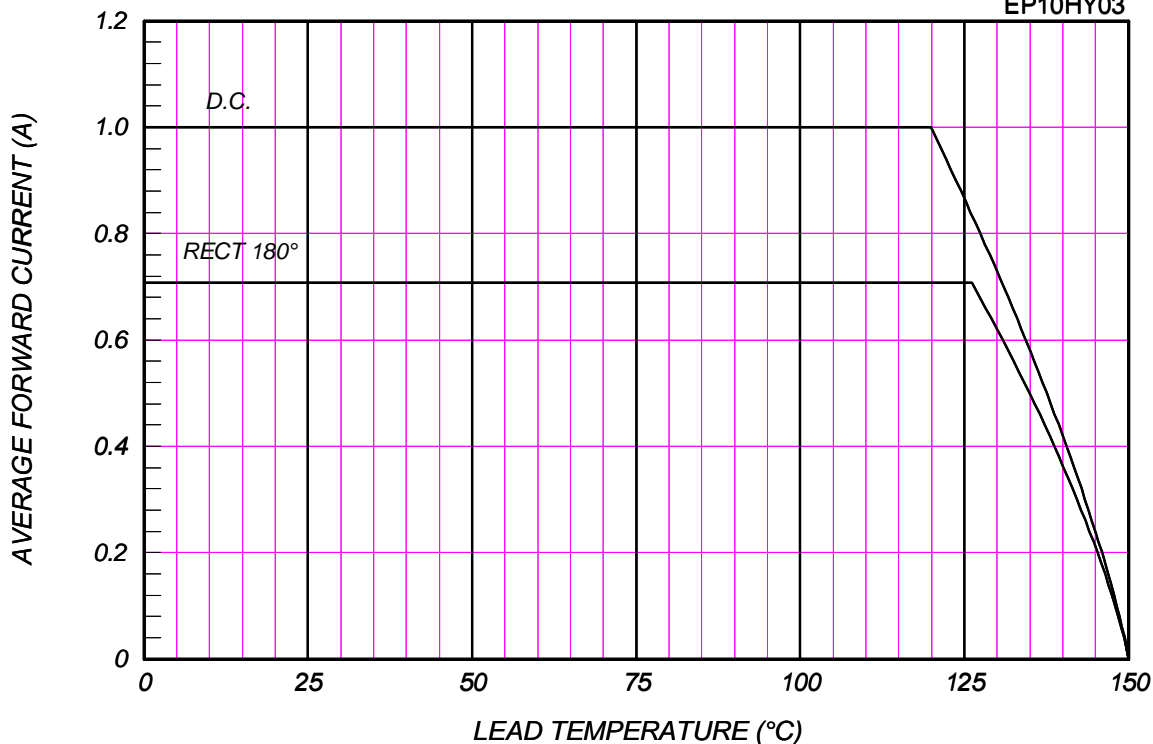
EP10HY03



AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE

$V_{RM}=0V$

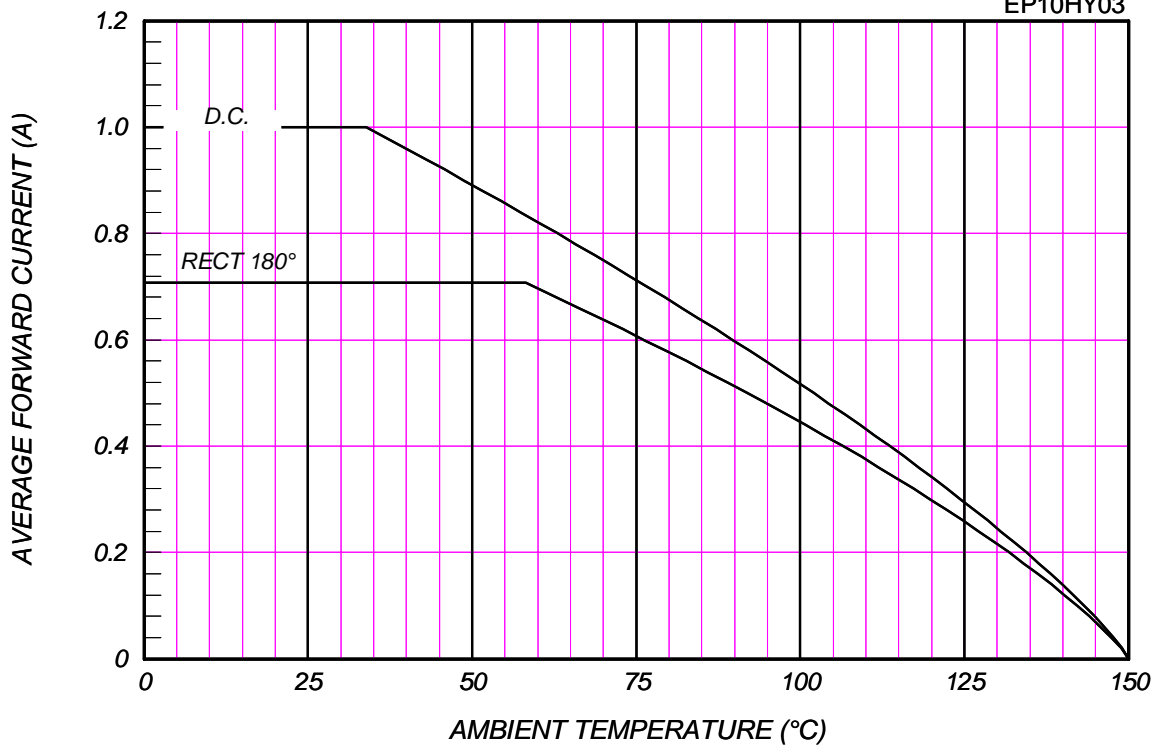
EP10HY03



AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Glass-Epoxy Substrate Mounted (Soldering Land=2x2mm), $V_{RM}=0V$

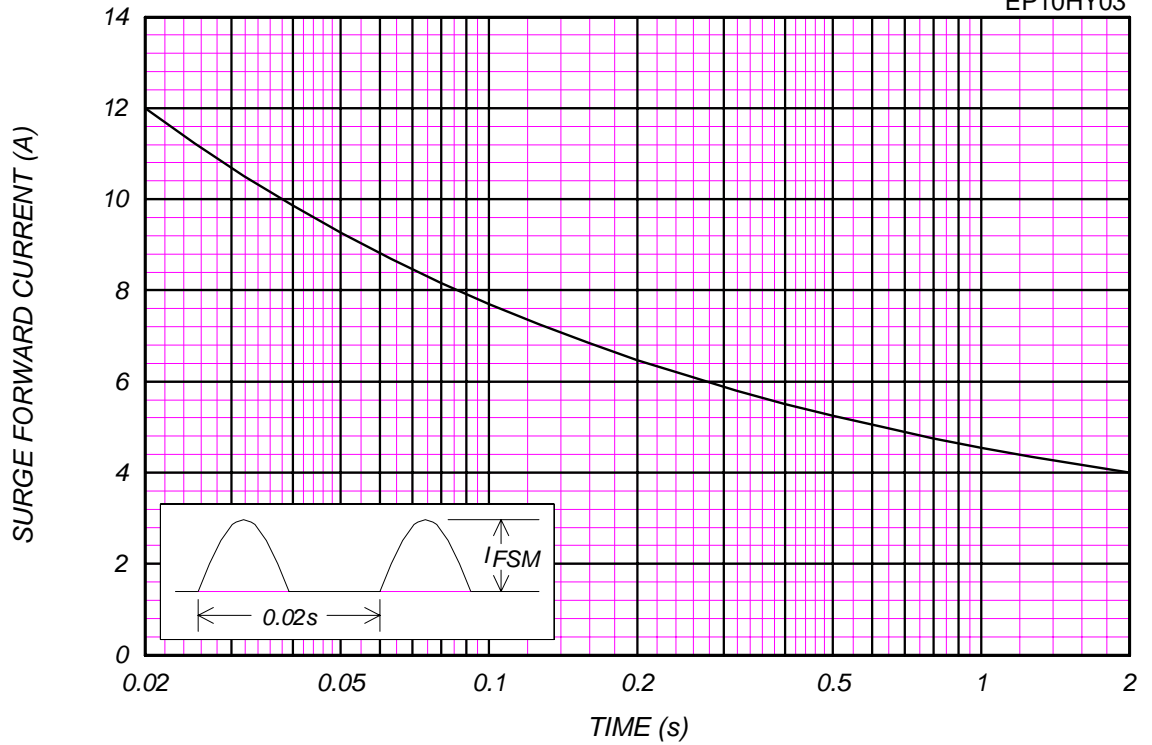
EP10HY03



SURGE CURRENT RATINGS

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

EP10HY03



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

EP10HY03

