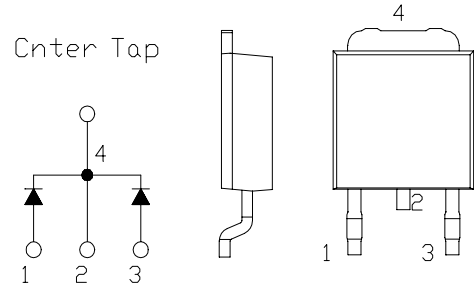


**10A 40V Cathode Common**
**SBD Type : ECQ10A04-F**
**OUTLINE DRAWING**

For High Frequency Rectification

**FEATURES**

- \* High VRM SBD
- \* Low Forward Voltage Drop and Low Noise
- \* Fully Molded Isolation
- \* Dual Diodes Cathode Common


**Maximum Ratings**

Approx Net Weight:0.30g

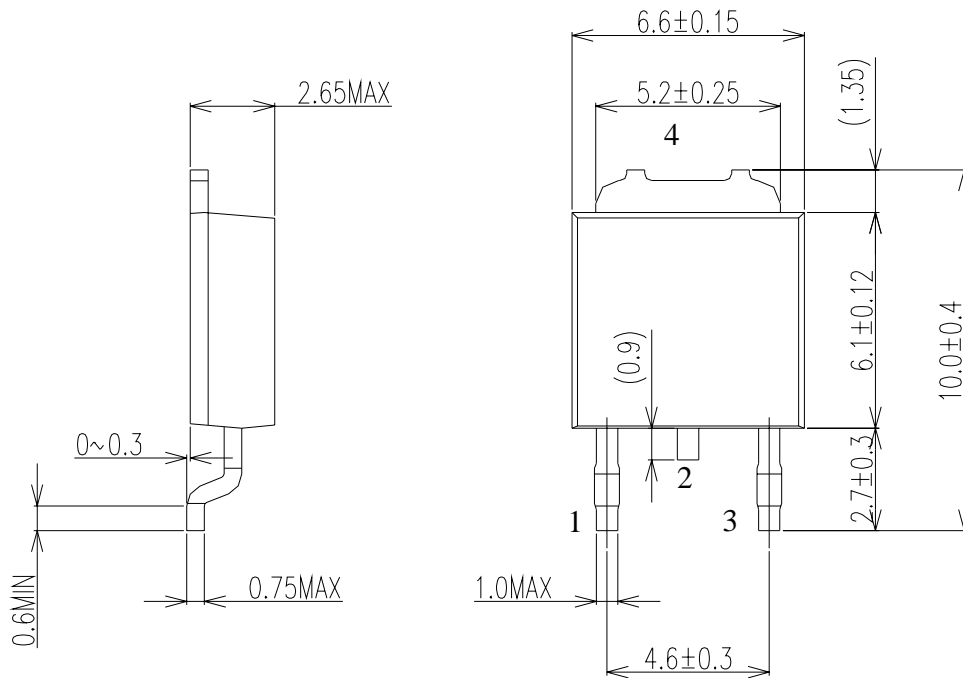
Rating	Symbol	ECQ10A04-F			Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	40			V
Average Rectified Output Current	$I_o$	10	$T_c=105^{\circ}\text{C}$	50 Hz, Full Sine Wave Resistive Load	A
		2.0	$T_a=28^{\circ}\text{C}$	50 Hz, Full Sine Wave Resistive Load P.C.Board mounted *	
RMS Forward Current	$I_{F(RMS)}$	11.1			A
Surge Forward Current	$I_{FSM}$	100	50 Hz Full Sine Wave, 1cycle Non-repetitive		A
Operating Junction Temperature Range	$T_{jw}$	- 40 to + 150			$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$	- 40 to + 150			$^{\circ}\text{C}$

**Electrical • Thermal Characteristics**

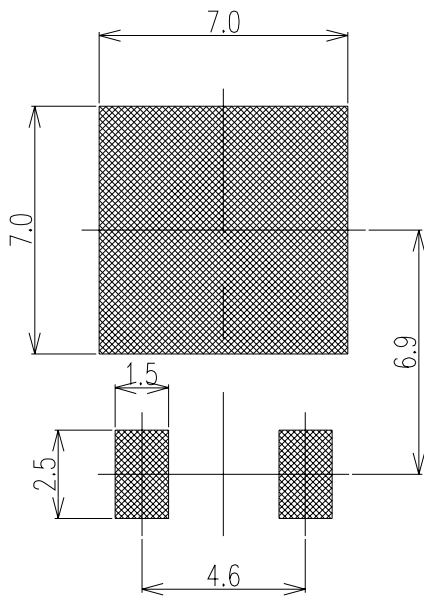
Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	$I_{RM}$	$T_j=25^{\circ}\text{C}, V_{RM}=V_{RRM}$ per Diode	-	-	3	mA
Peak Forward Voltage	$V_{FM}$	$T_j=25^{\circ}\text{C}, I_{FM}=5\text{A}$ per Diode	-	-	0.55	V
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	4	$^{\circ}\text{C/W}$
	$R_{th(j-a)}$	Junction to Ambient With P.C.Board mounted *	-	-	80	

\*: Print Land 20x20

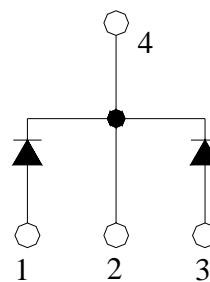
ECQ10A04-F OUTLINE DRAWING (Dimensions in mm)



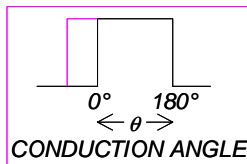
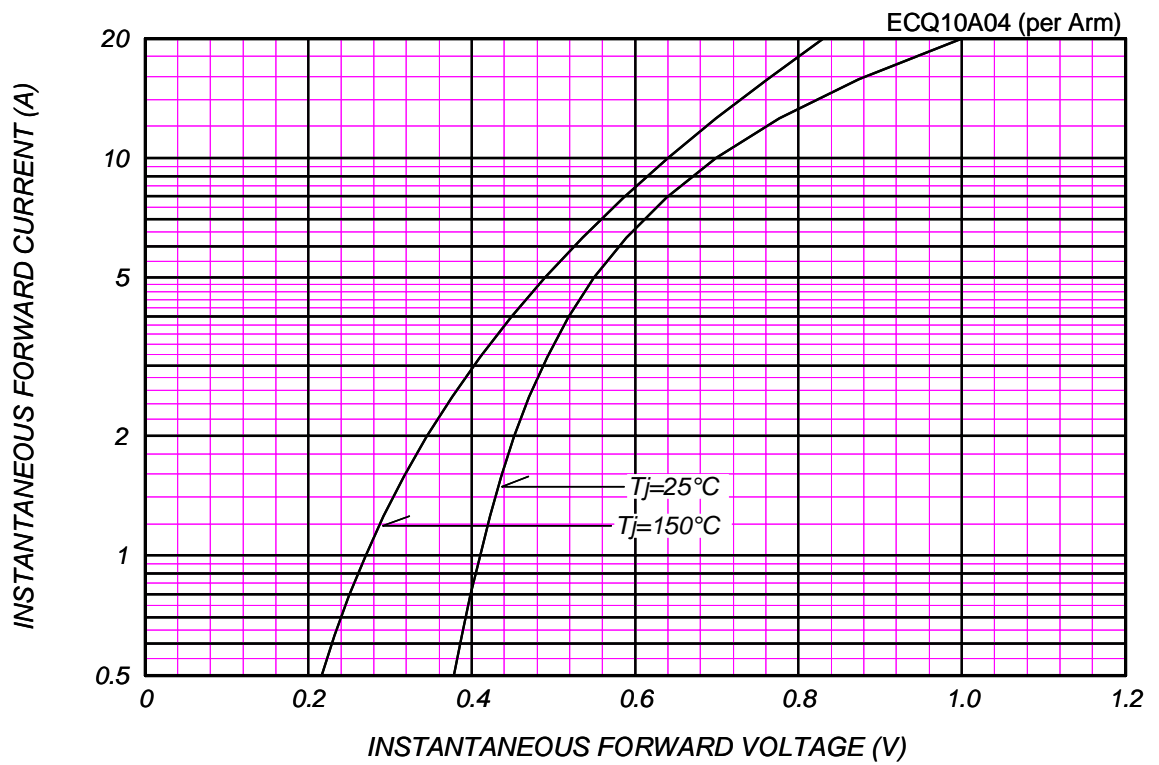
Soldering PAD



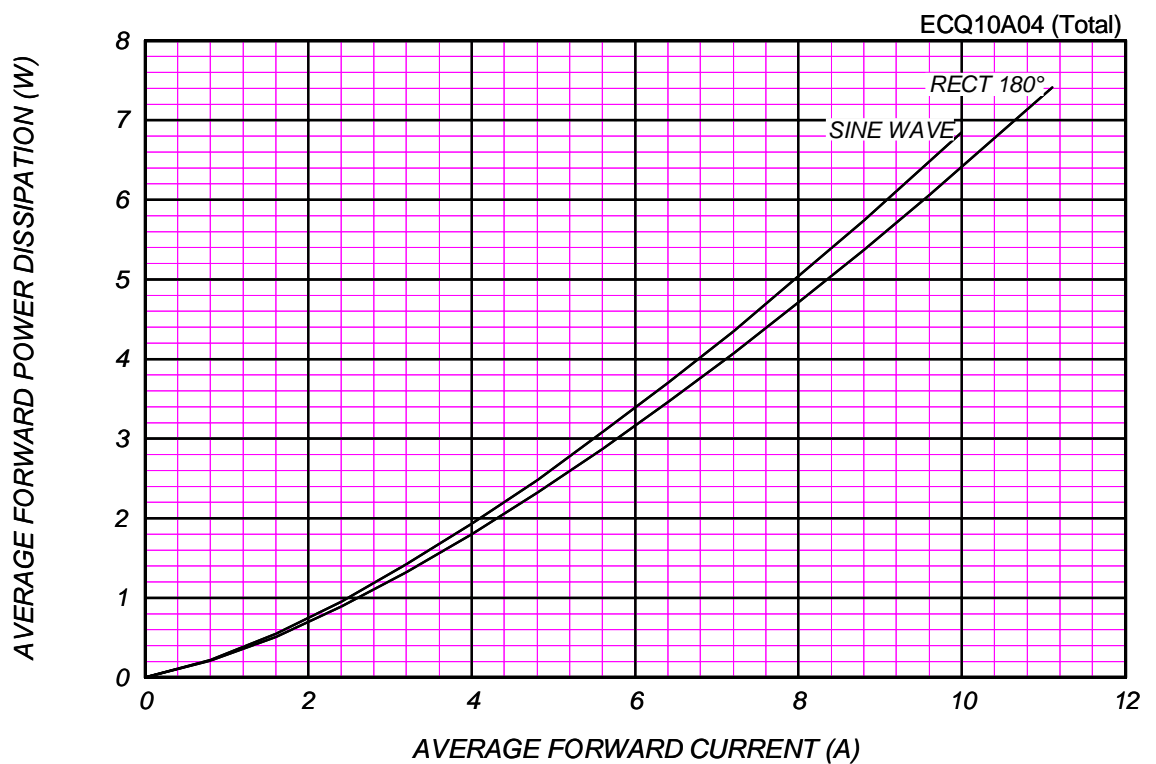
Center Tap



### FORWARD CURRENT VS. VOLTAGE



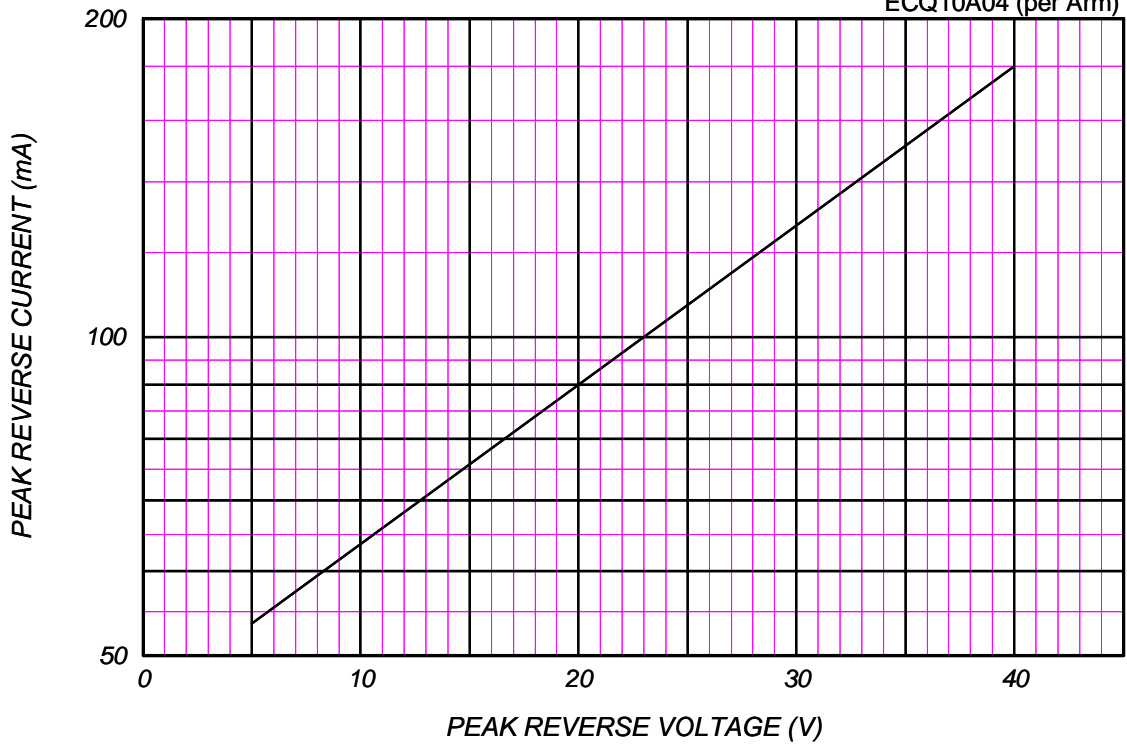
### AVERAGE FORWARD POWER DISSIPATION



### PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

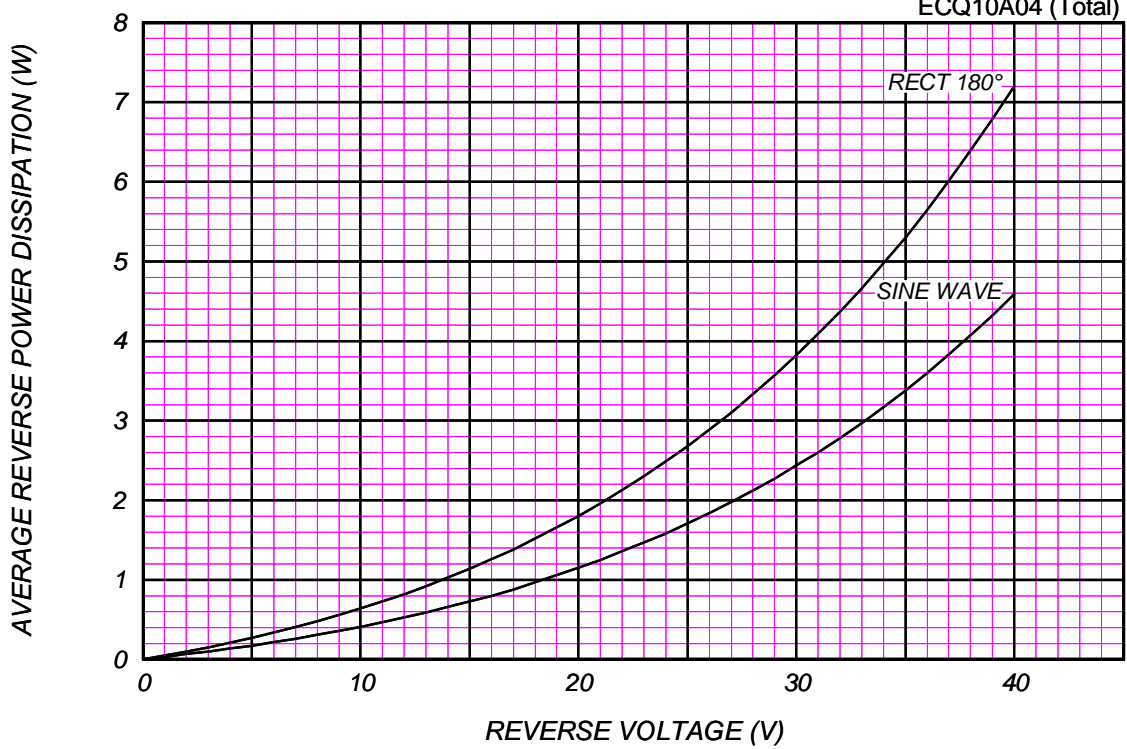
$T_j = 150\text{ }^\circ\text{C}$

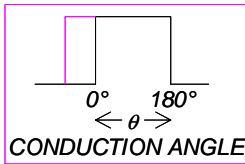
ECQ10A04 (per Arm)



### AVERAGE REVERSE POWER DISSIPATION

ECQ10A04 (Total)

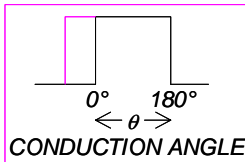
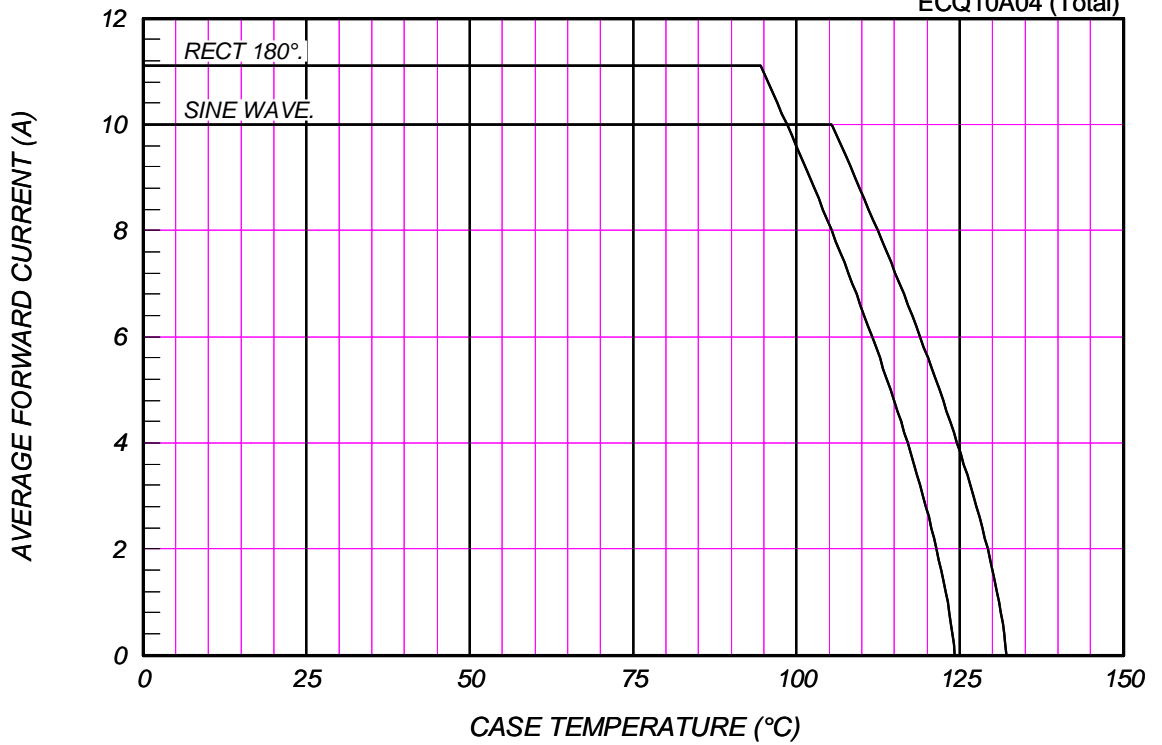




### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}=40V$

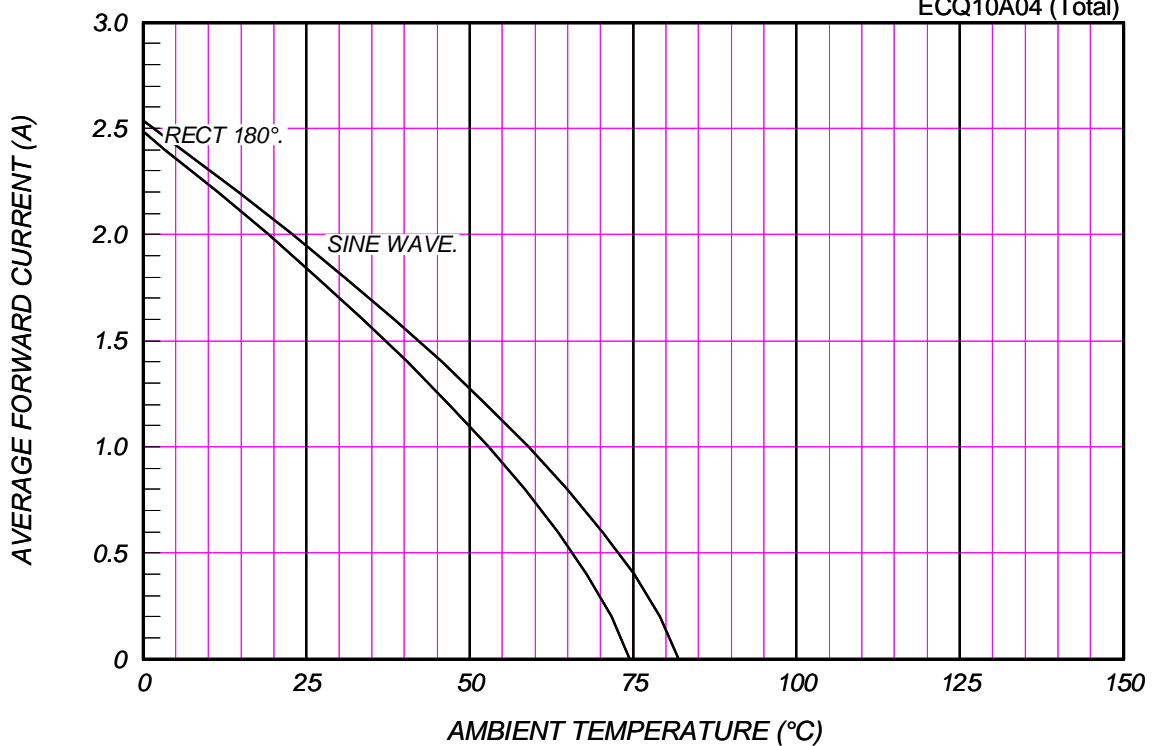
ECQ10A04 (Total)



### AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

$V_{RM}=40V, P.C$  Board mounted

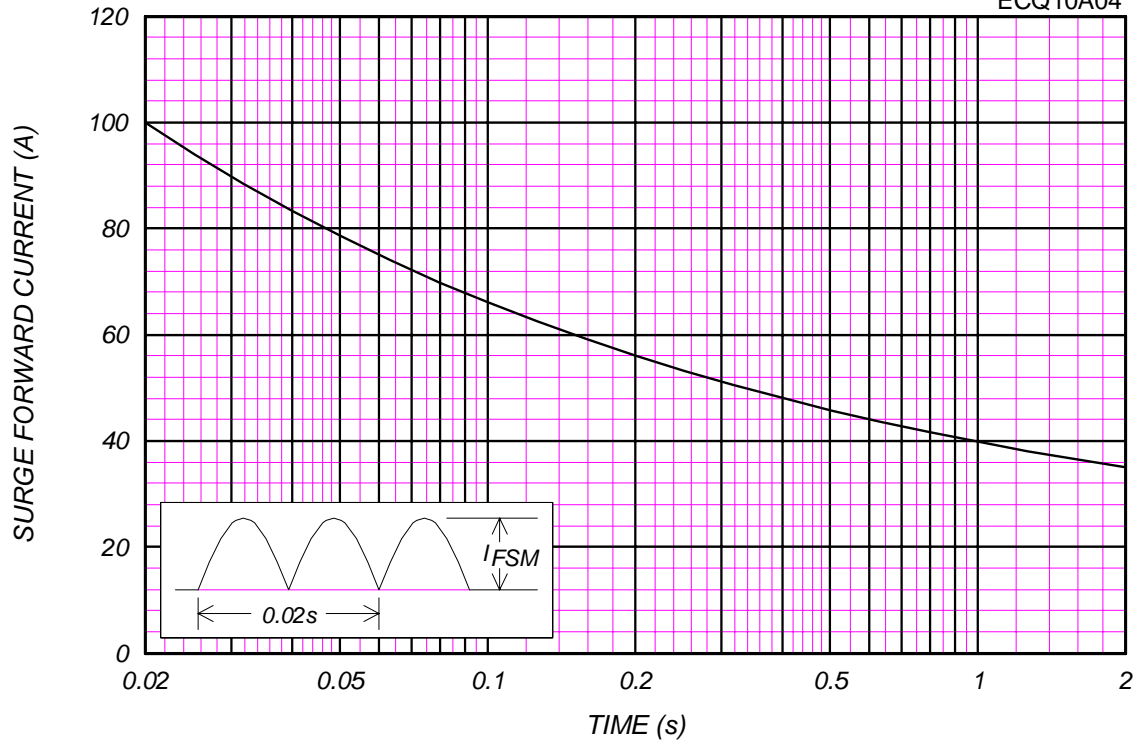
ECQ10A04 (Total)



### SURGE CURRENT RATINGS

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

ECQ10A04



### JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

T<sub>j</sub>=25°C,V<sub>m</sub>=20mV<sub>RMS</sub>,f=100kHz,Typical Value

ECQ10A04 (per Arm)

