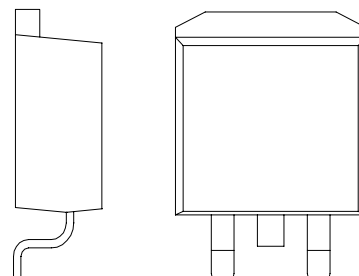
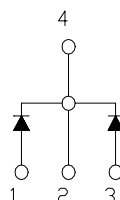


**30A 40V Cathode Common**
**SBD Type : TCQ30B04**
**OUTLINE DRAWING**

For High Frequency Rectification

**FEATURES**

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


**Maximum Ratings**

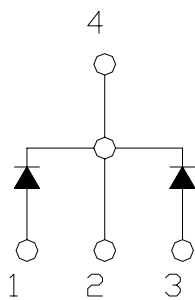
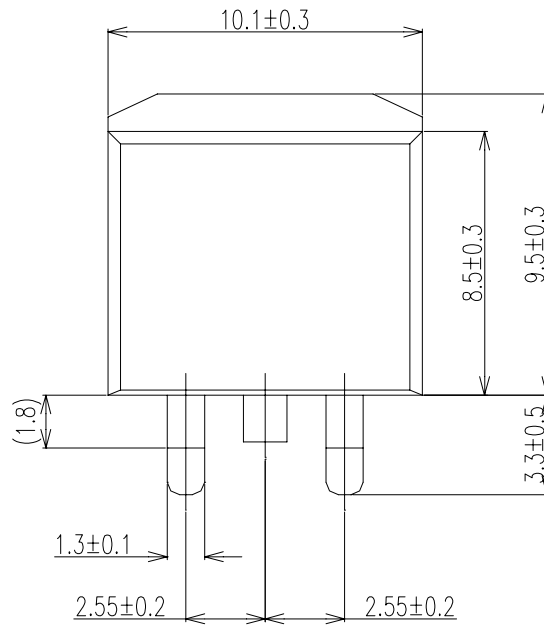
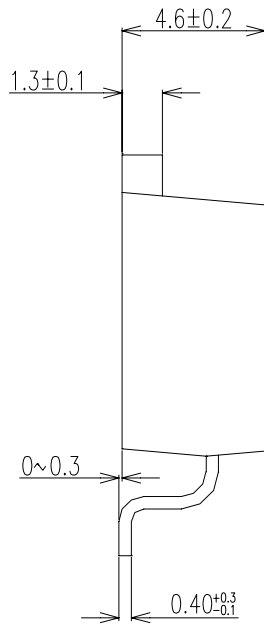
Approx Net Weight:1.4g

Rating	Symbol	TCQ30B04		Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	40		V
Average Rectified Output Current	$I_O$	30	$T_c=100^{\circ}\text{C}$ 50 Hz, Full Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	33.3		A
Surge Forward Current	$I_{FSM}$	150	50 Hz Full Sine Wave, 1 cycle Non-repetitive	A
Operating Junction Temperature Range	$T_{jw}$	- 40 to + 150		$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$	- 40 to + 150		$^{\circ}\text{C}$

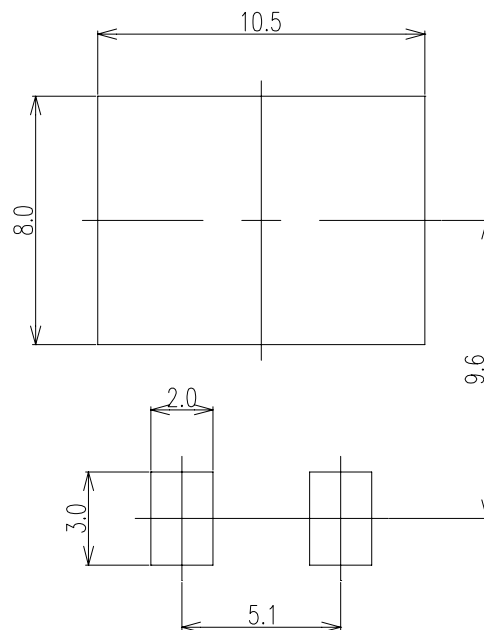
**Electrical • Thermal Characteristics**

Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	$I_{RM}$	$T_j=25^{\circ}\text{C}$ , $V_{RM}=V_{RRM}$ per Diode	-	-	10	mA
Peak Forward Voltage	$V_{FM}$	$T_j=25^{\circ}\text{C}$ , $I_{FM}=15\text{A}$ per Diode	-	-	0.61	V
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	1.5	$^{\circ}\text{C}/\text{W}$

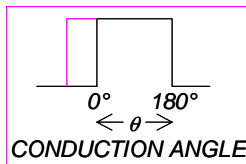
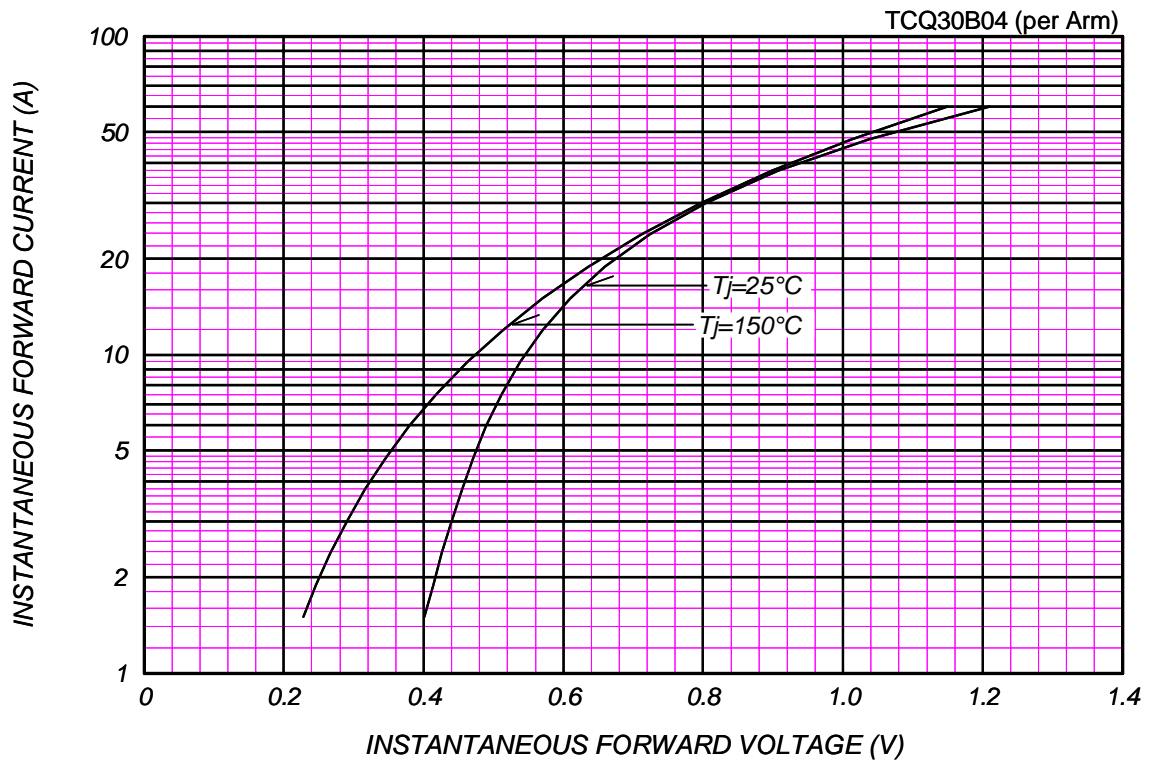
### C\_T\_ OUTLINE DRAWING (Dimensions in mm)



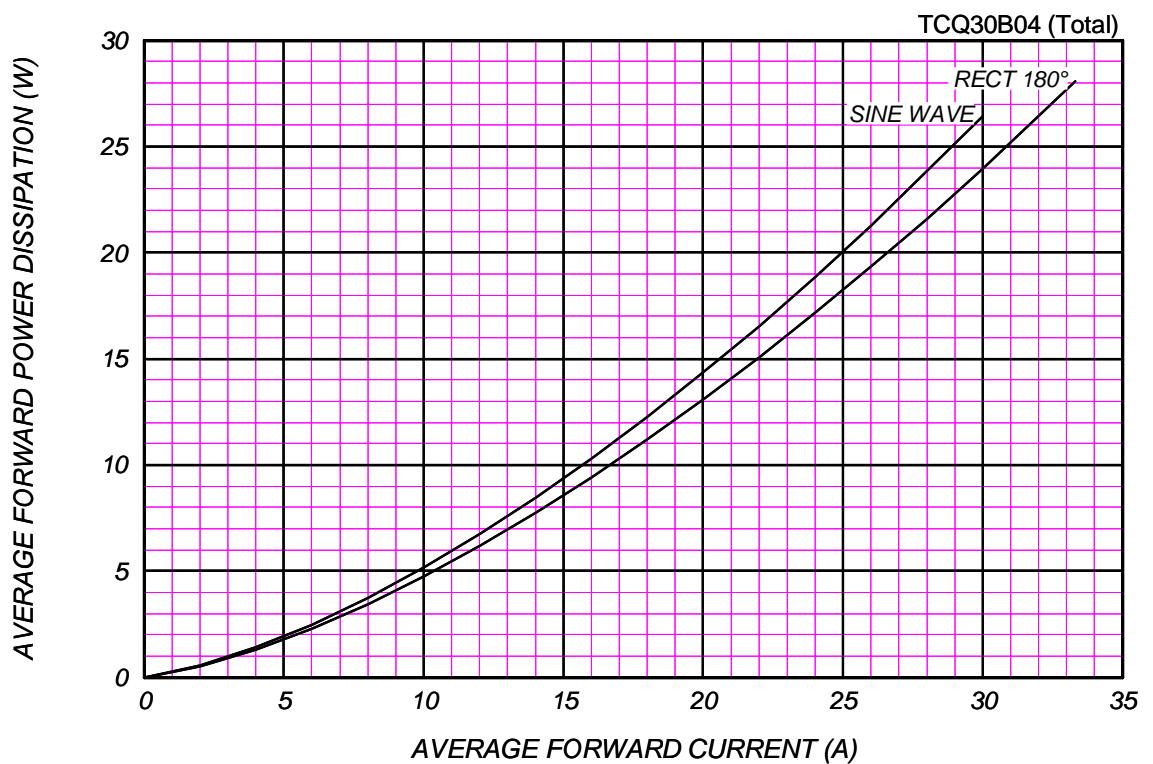
### SOLDERING PAD



FORWARD CURRENT VS. VOLTAGE



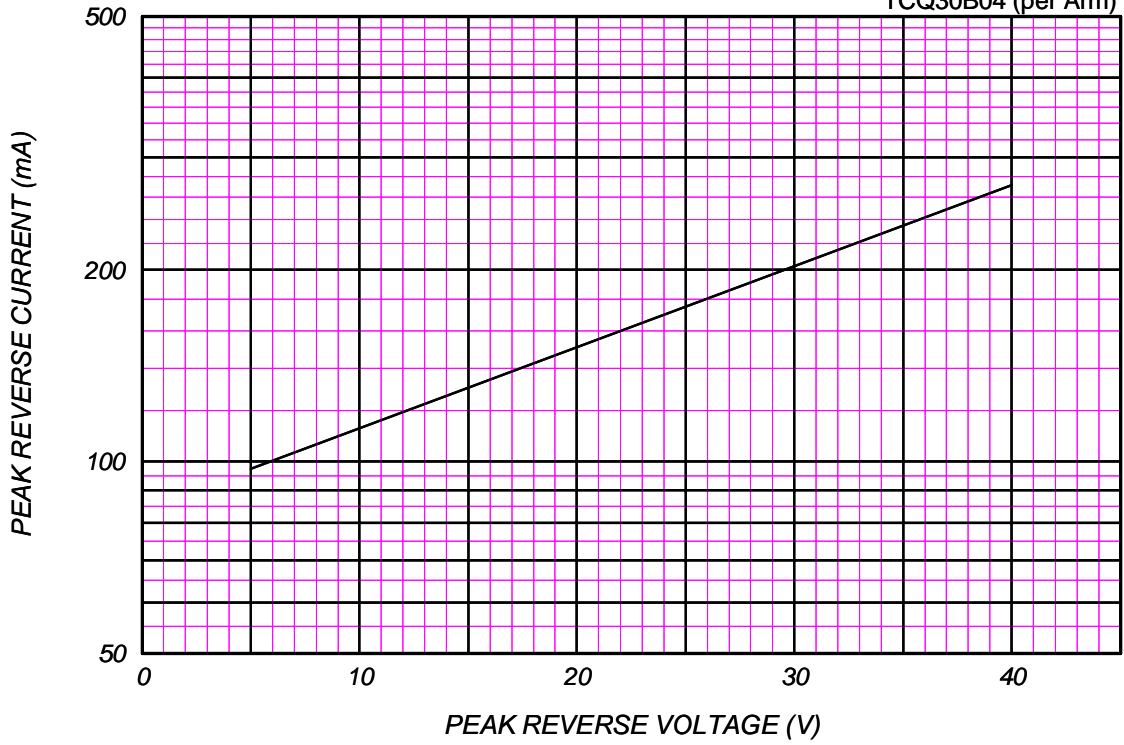
AVERAGE FORWARD POWER DISSIPATION



### PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

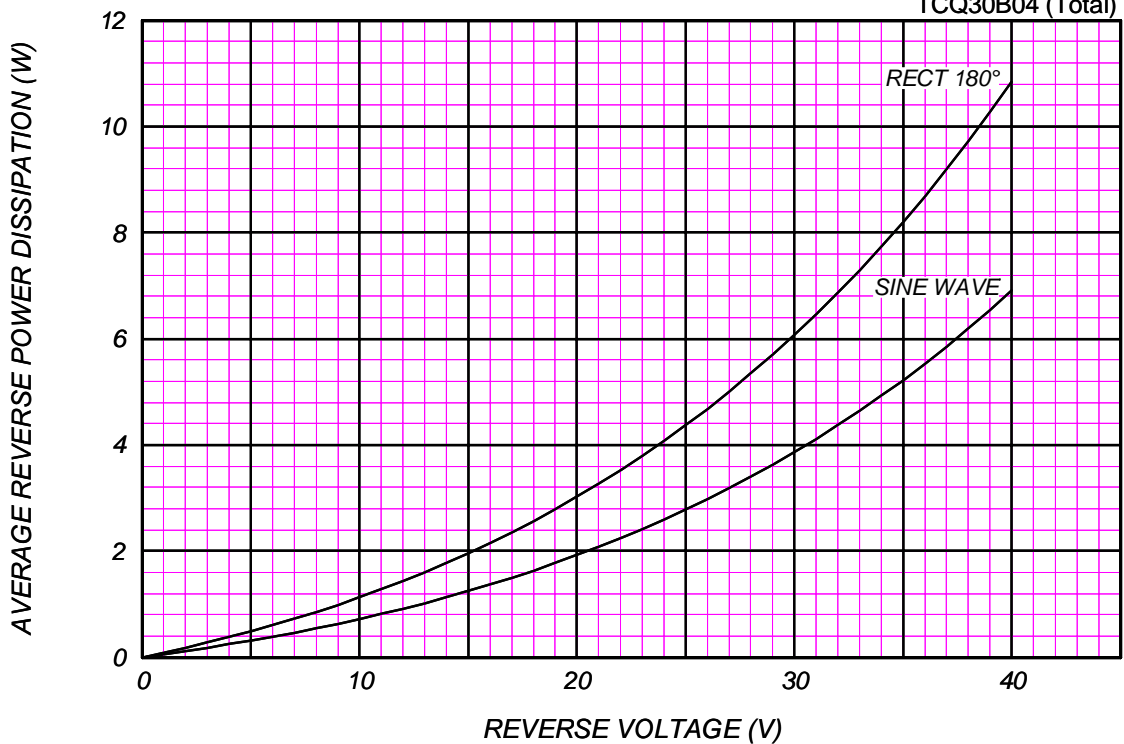
T<sub>j</sub> = 150 °C

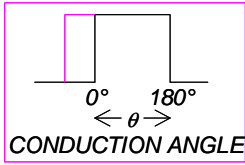
TCQ30B04 (per Arm)



### AVERAGE REVERSE POWER DISSIPATION

TCQ30B04 (Total)

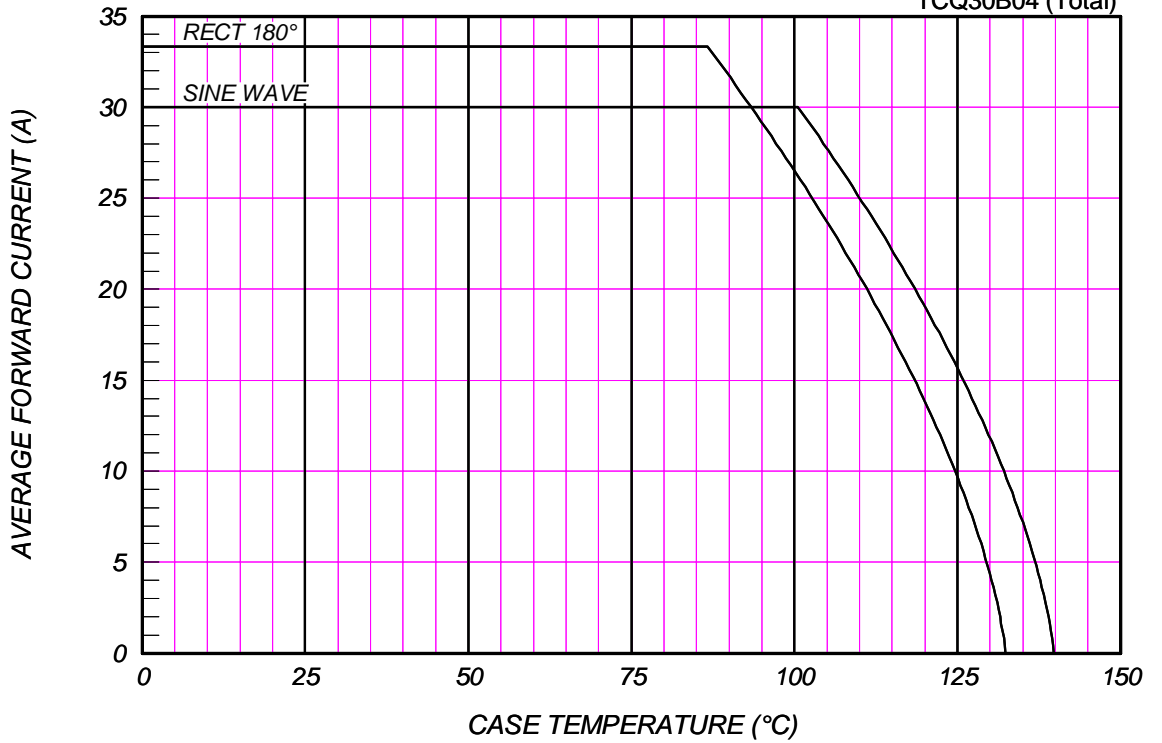




**AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE**

$V_{RM}=40V$

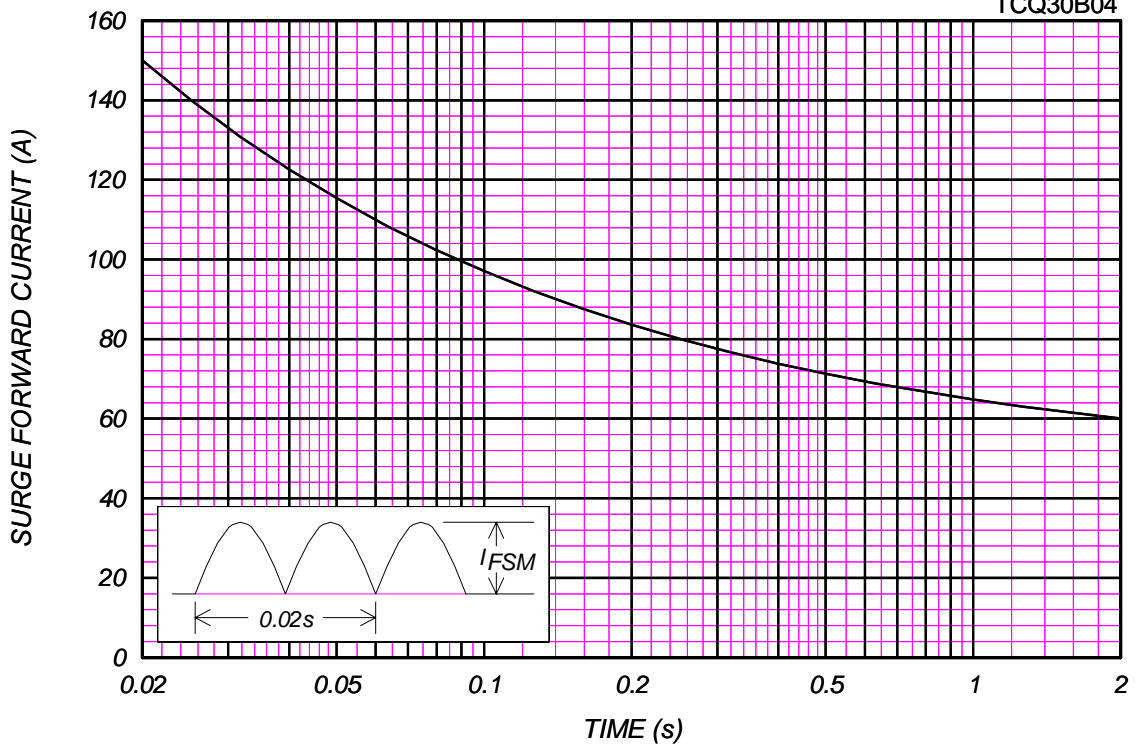
TCQ30B04 (Total)



**SURGE CURRENT RATINGS**

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

TCQ30B04



### JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

