

## Electrical And Radiant Characteristics at $T_A=25^\circ\text{C}$

Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Condition
$V_{BR\ CE0}$	Collector-to-Emitter Breakdown Voltage	30	-	-	V	$I_C=100\mu\text{A}$ , $E_e=0\text{mW}/\text{cm}^2$
$V_{BR\ ECO}$	Emitter-to-Collector Breakdown Voltage	5	-	-	V	$I_E=100\mu\text{A}$ , $E_e=0\text{mW}/\text{cm}^2$
$V_{CE\ (SAT)}$	Collector-to-Emitter Saturation Voltage	-	-	0.8	V	$I_C=2\text{mA}$ , $E_e=20\text{mW}/\text{cm}^2$
$I_{CE0}$	Collector Dark Current	-	-	100	nA	$V_{CE}=10\text{V}$ , $E_e=0\text{mW}/\text{cm}^2$
$T_R$	Rise Time (10% to 90%)	-	3	-	us	$V_{CE}=5\text{V}$ , $I_C=1\text{mA}$ , $R_L=1000\Omega$
$T_F$	Fall Time (90% to 10%)	-	3	-	us	
$I_{(ON)}$	On State Collector Current	0.1	0.3	-	mA	$V=5\text{V}$ , $E_e=1\text{mW}/\text{cm}^2$ , $\lambda=940\text{nm}$

## Absolute Maximum Rating at $T_A=25^\circ\text{C}$

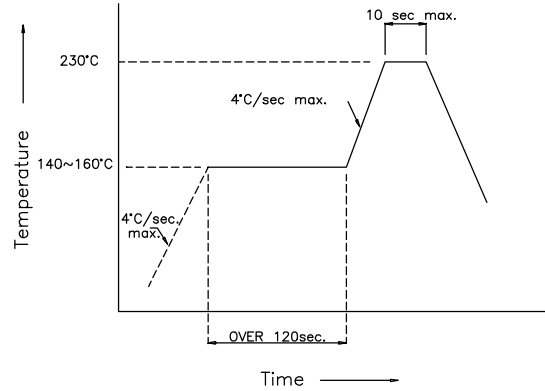
Parameter	Max. Ratings
Collector-to-Emitter Breakdown Voltage	30V
Emitter-to-Collector Breakdown Voltage	5V
Power Dissipation at (or below) $25^\circ\text{C}$ Free Air Temperature	100mW
Operating Temperature Range	$-40^\circ\text{C} \sim +85^\circ\text{C}$
Storage Temperature Range	$-40^\circ\text{C} \sim +85^\circ\text{C}$

## KP-3216P3BT

### SMT Reflow Soldering Instructions

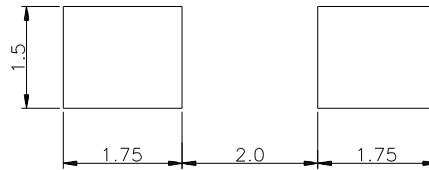
Number of reflow process shall be less than 2 times and cooling

process to normal temperature is required between first and second soldering process.



### Recommended Soldering Pattern

(Units : mm)



### Tape Specifications

(Units : mm)

