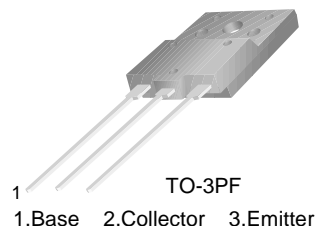


# KSC5088

KSC5088

## High Definition Color Display Horizontal Deflection Output

- High Collector -Base Voltage :  $V_{CBO}=1500V$
- High Speed Switching:  $t_F = 0.1\mu s$  (Typ.)



## NPN Triple Diffused Planar Silicon Transistor

### Absolute Maximum Ratings $T_C=25^\circ C$ unless otherwise noted

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	1500	V
$V_{CEO}$	Collector-Emitter Voltage	800	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current (DC)	8	A
$I_{CP}$	Collector Current (Pulse)	15	A
$I_B$	Base Current	4	A
$P_C$	Collector Dissipation ( $T_C=25^\circ C$ )	50	W
$T_J$	Junction Temperature	150	$^\circ C$
$T_{STG}$	Storage Temperature	- 55 ~ 150	$^\circ C$

### Electrical Characteristics $T_C=25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = 800V, I_E = 0$			10	$\mu A$
$I_{EBO}$	Emitter Cut-off Current	$V_{EB} = 4V, I_C = 0$			1	mA
$h_{FE1}$ $h_{FE2}$	DC Current Gain	$V_{CE} = 5V, I_C = 1A$ $V_{CE} = 5V, I_C = 6A$	8 5			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 6A, I_B = 1.5A$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 6A, I_B = 1.5A$			1.5	V
$f_T$	Current-Gain Bandwidth Product	$V_{CE} = 10V, I_C = 1A$		3		MHz
$t_{STG}$	Storage Time	$V_{CC} = 200V, I_C = 6A, R_L = 33.3\Omega$ $I_{B1} = 1.2A, I_{B2} = -2.4A$			3.0	$\mu s$
$t_F$	Fall Time				0.2	$\mu s$

### Thermal Characteristics $T_C=25^\circ C$ unless otherwise noted

Symbol	Characteristic	Max	Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case	2.49	$^\circ C/W$

# Typical Characteristics

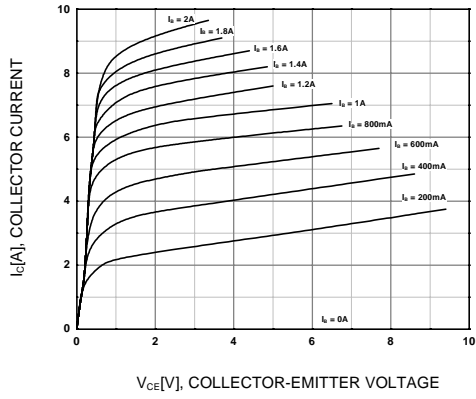


Figure 1. Static Characteristic

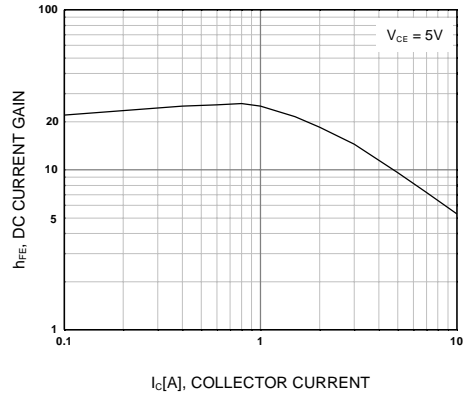


Figure 2. DC current Gain

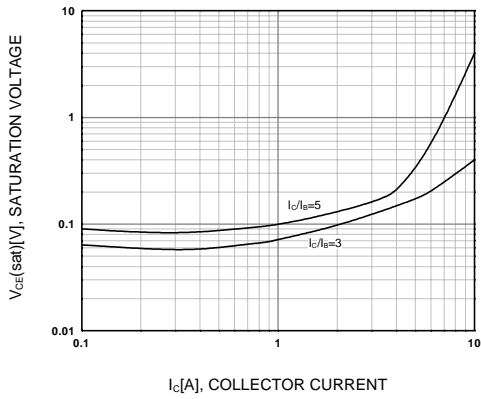


Figure 3. Collector-Emitter Saturation Voltage

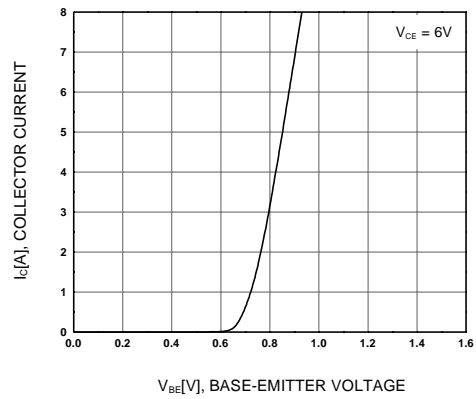


Figure 4. Base-Emitter On Voltage

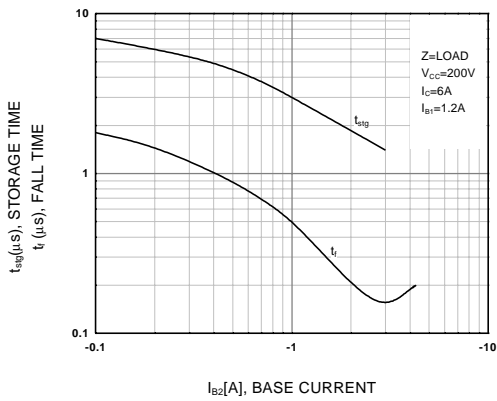


Figure 5. Switching Time

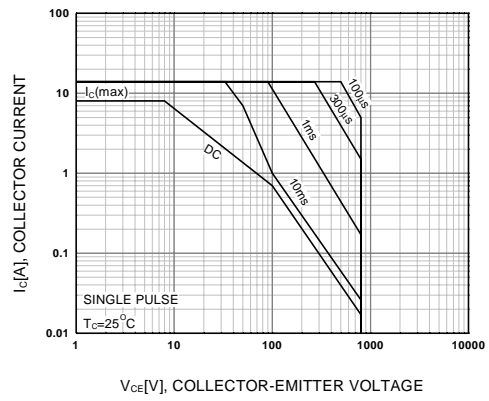


Figure 6. Safe Operating Area

# Typical Characteristics (Continued)

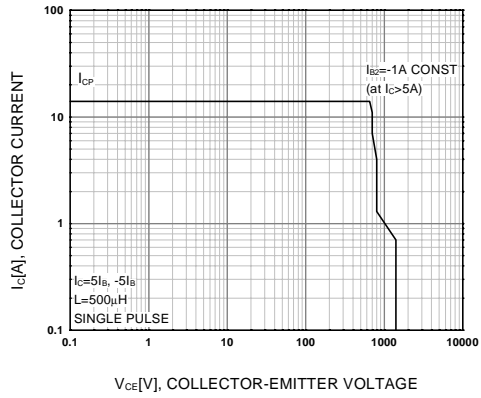


Figure 7. Reverse Safe Operating Area

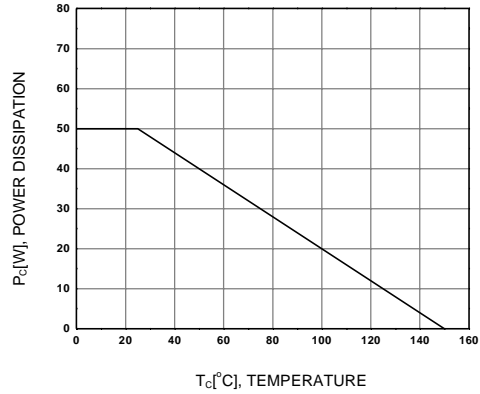
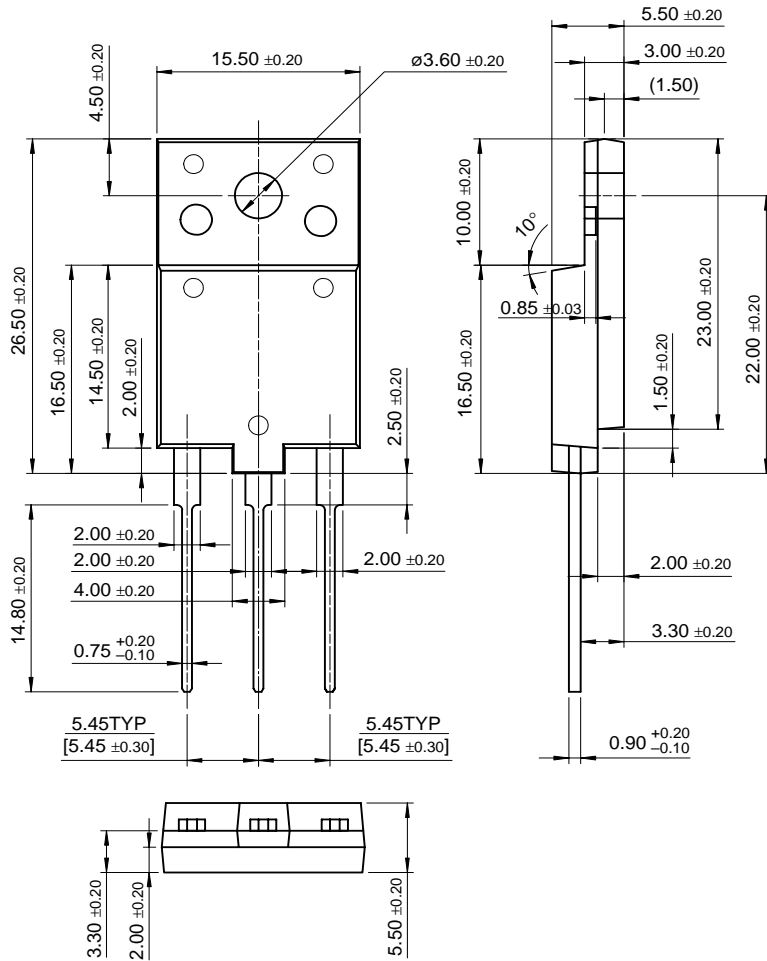


Figure 8. Power Derating

# Package Dimensions

KSC5088

## TO-3PF



Dimensions in Millimeters

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CROSSVOLT™	POP™	UHC™
E <sup>2</sup> CMOS™	PowerTrench®	VCX™
FACT™	QFET™	
FACT Quiet Series™	QS™	
FAST®	Quiet Series™	
FASTr™	SuperSOT™-3	
GTO™	SuperSOT™-6	

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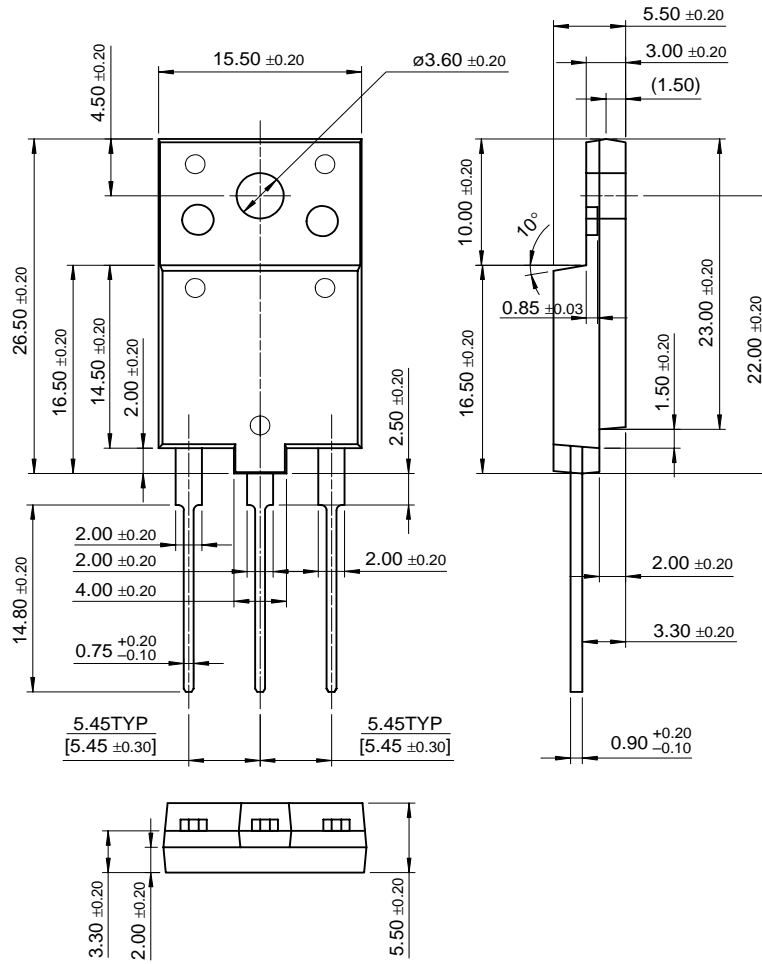
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Datasheet Identification	Product Status	Definition
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# Package Dimensions

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FACT Quiet Series™	QS™	
FAST®	Quiet Series™	
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