

Rev.F Mar.-2016

TO-220F

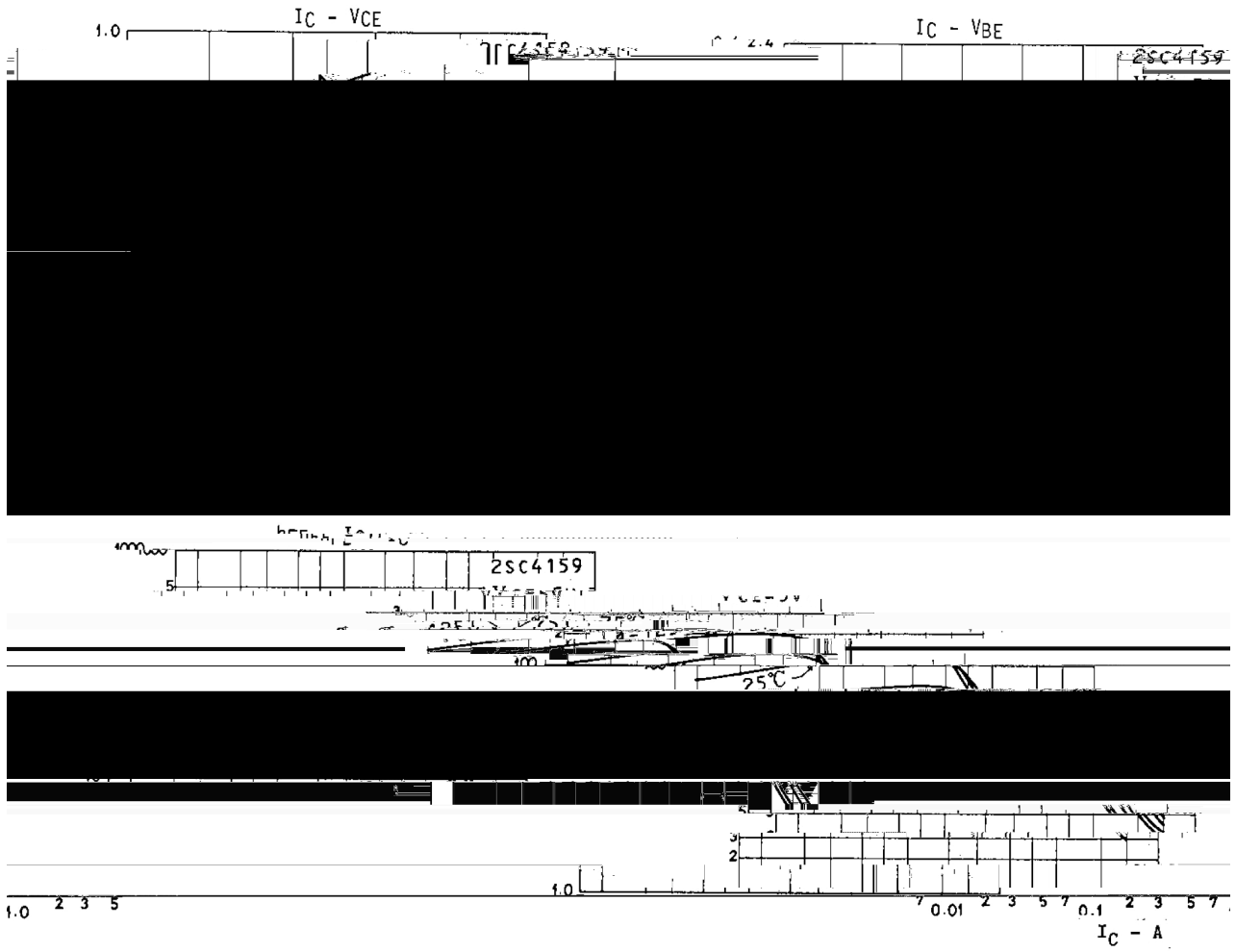
NPN

Silicon NPN transistor in a TO-220F Plastic Package.

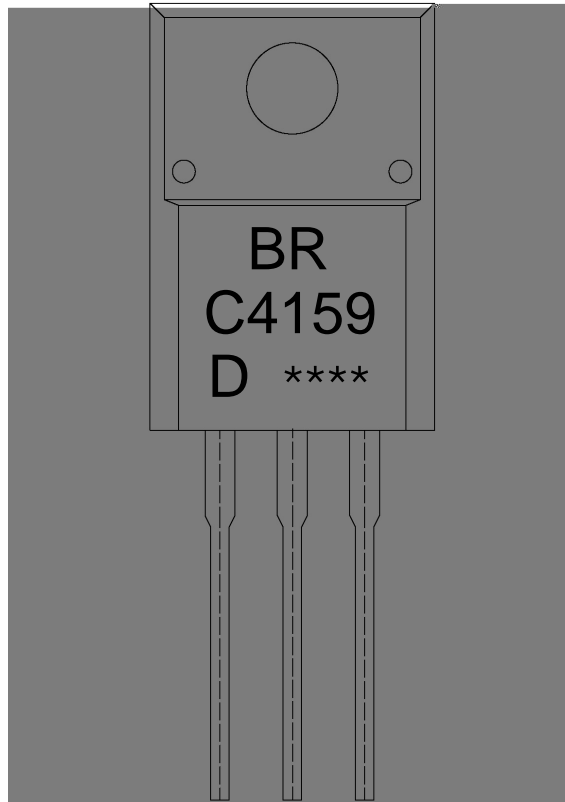
High voltage.

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	180	V
Collector to Emitter Voltage	$V_{CEO}$	160	V
Emitter to Base Voltage	$V_{EBO}$	6.0	V
Collector Current - Continuous	$I_C$	1.5	A
Collector Current – Continuous(Pulse)	$I_{cp}$	3.0	A
Collector Power Dissipation	$P_C(T_C=25^\circ C)$	15	W
Junction Temperature	$T_j$	150	
Storage Temperature Range	$T_{stg}$	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	$V_{CBO}$	$I_C=1.0mA$ $I_E=0$	180			V
Collector to Emitter Breakdown Voltage	$V_{CEO}$	$I_C=1.0mA$ $R_{BE}=\infty$	160			V
Emitter to Base Breakdown Voltage	$V_{EBO}$	$I_E=1.0mA$ $I_C=0$	6.0			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=120V$ $I_E=0$			10	A
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=4.0V$ $I_C=0$			10	A
DC Current Gain	$h_{FE}$	$V_{CE}=5.0V$ $I_C=300mA$	60		200	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA$ $I_B=50mA$		0.3		V
Base to Emitter Voltage	$V_{BE}$	$V_{CE}=5.0V$ $I_C=10mA$			1.5	V
Transition Frequency	$f_T$	$V_{CE}=10V$ $I_C=50mA$		100		MHz



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BR

C4159

D:  $h_{FE}$

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Note:

BR: Company Code.

C4159: Product Type.

D:  $h_{FE}$  Classifications Symbol

\*\*\*\*: Lot No. Code, code change with Lot No.

