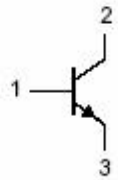
isc Silicon NPN Power Transistor — 2SC3258



1 2 3

PIN 1. BASE
2.COLLECTOR
3. EMITTER
TO-220C package

DESCRIPTION

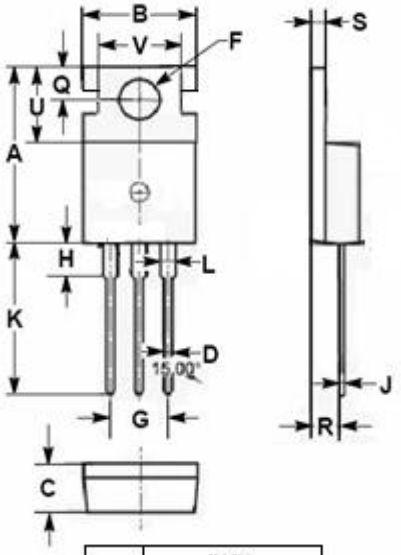
- Low Collector Saturation Voltage-
  : $V_{CE(sat)}$= 0.4V(Max.)@ I_C= 3A
- High Switching Speed
- Complement to Type 2SA1293
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for high current switching applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	8	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation @ T_C=25℃	30	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 10mA; I_B= 0	80			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 3A; I_B= 0.15A			0.4	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 3A; I_B= 0.15A			1.2	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 100V; I_E= 0			1.0	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7V; I_C= 0			1.0	μA
h_{FE-1}	DC Current Gain	I_C= 1A; V_{CE}= 1V	70		240	
h_{FE-2}	DC Current Gain	I_C= 3A; V_{CE}= 1V	40			
f_T	Current-Gain—Bandwidth Product	I_C= 1A; V_{CE}= 4V		120		MHz
C_{OB}	Output Capacitance	I_E=0; V_{CB}= 10V; f_{test}=1.0MHz		80		pF
Switching times						
t_{on}	Turn-On Time	I_{B1}= -I_{B2}= 0.15A; R_L= 10Ω; V_{CC}≈ 30V		0.2		μs
t_{stg}	Storage Time			1.0		μs
t_f	Fall Time			0.1		μs

◆ h_{FE-1} Classifications

O	Y
70-140	120-240

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