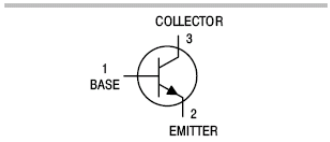
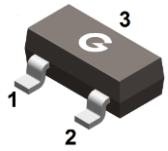
Midium Power Transistor 2SCR544R-3L

FEATURES

- Low saturation voltage, typically
  VCE (sat) = 0.3V (Max.) (IC / IB= -1A / 50mA)
- High speed switching

HF





SOT-23-3L

APPLICATIONS

- Driver

ORDERING INFORMATION

Type No.	Marking	Package Code
2SCR544R-3L	NS	SOT-23-3L

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	2.5	A
P_D	Power Dissipation	0.5	W
T_j,T_{stg}	Junction and Storage Temperature	-55 to +150	℃

Midium Power Transistor 2SCR544R-3L

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=1mA,I_E=0	80	-	-	V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=100μA,I_B=0	80	-	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	6	-	-	V
Collector cut-off current	I_{CBO}	V_{CB}=80V,I_E=0	-	-	1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0	-	-	1	μA
DC current gain	h_{FE}	V_{CE}=3V,I_C=100mA	120	-	390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=1A, I_B=50mA	-	100	300	mV
Transition frequency	f_T	V_{CE}=10V, I_E=500mA f=100MHz	-	280	-	MHz
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0,f=1MHz	-	16	-	pF

Midium Power Transistor 2SCR544R-3L

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

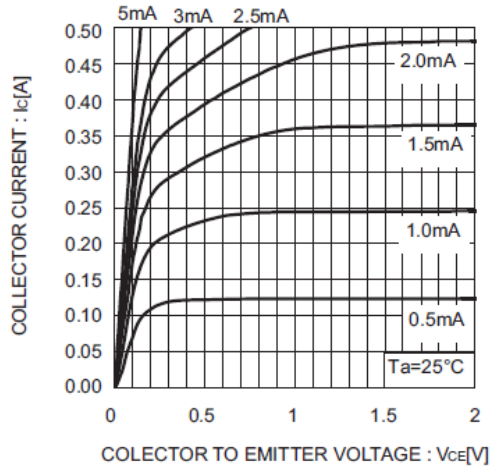


Fig.1 Typical Output Characteristics

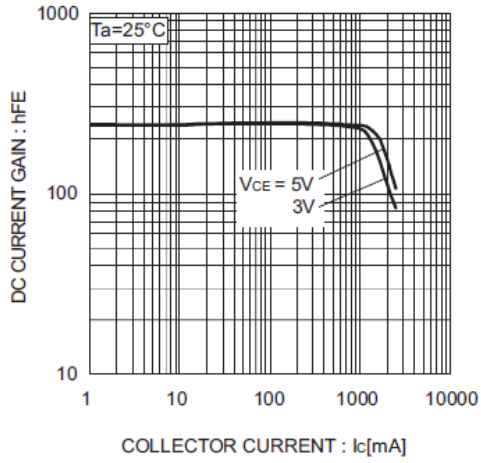


Fig.2 DC Current Gain vs. Collector Current (I)

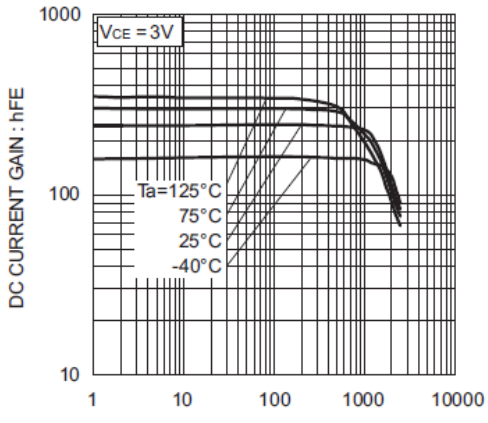


Fig3. DC Current Gain vs. Collector Current (II)

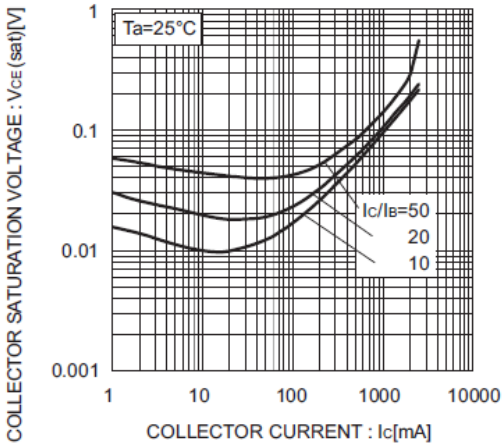


Fig.4 Collector-Emitter Saturation Voltage vs. Collector Current (I)

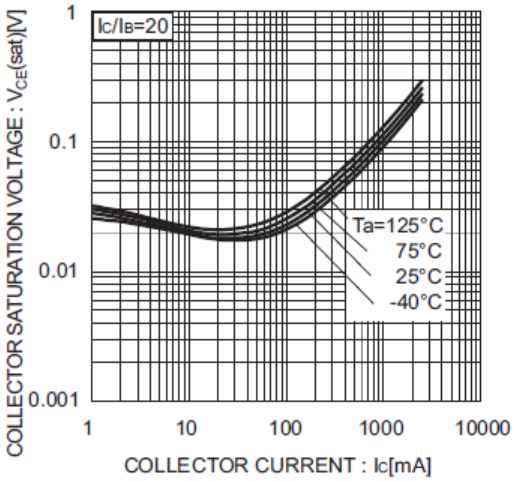


Fig.5 Collector-Emitter Saturation Voltage vs. Collector Current (II)

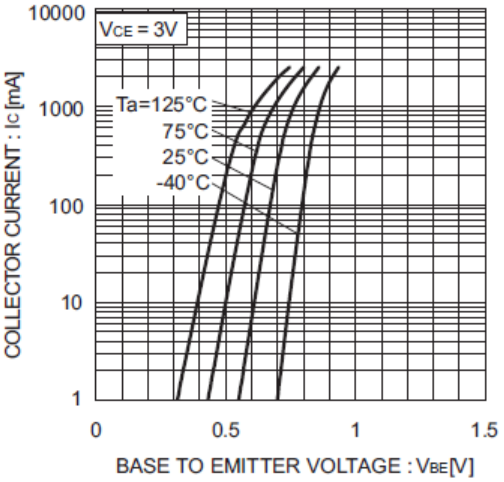


Fig.6 Ground Emitter Propagation Characteristics

Midium Power Transistor 2SCR544R-3L

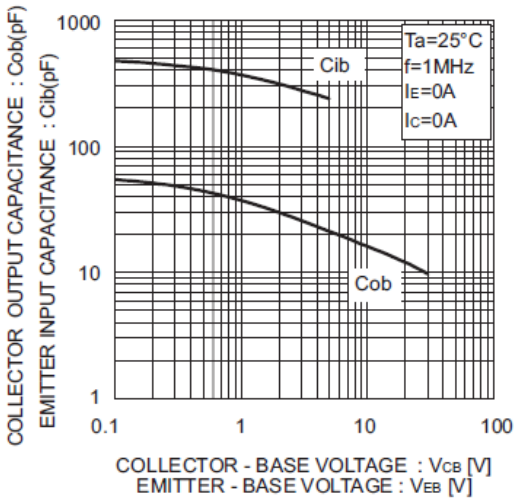


Fig.7 Emitter Input Capacitance vs. Emitter-Base Voltage
Collector Output Capacitance vs. Collector-Base Voltage

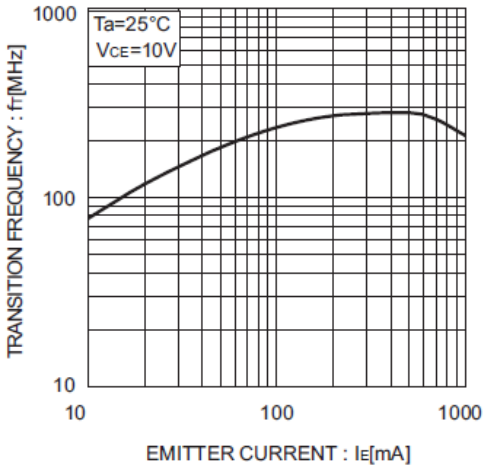


Fig.8 Gain Bandwidth Product vs. Emitter Current

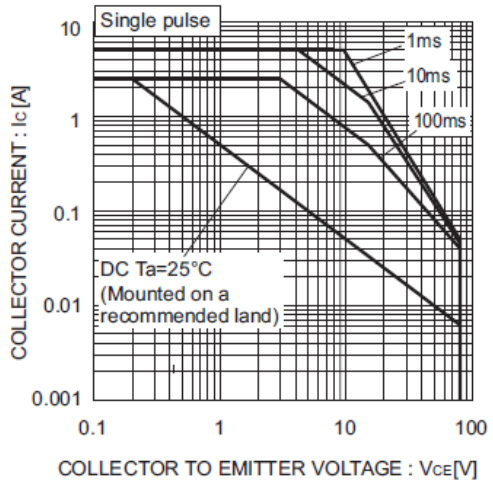
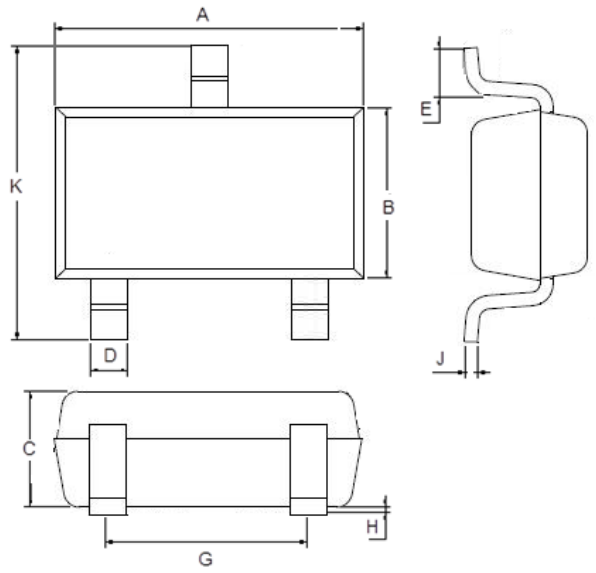


Fig.9 Safe Operating Area

Midium Power Transistor 2SCR544R-3L

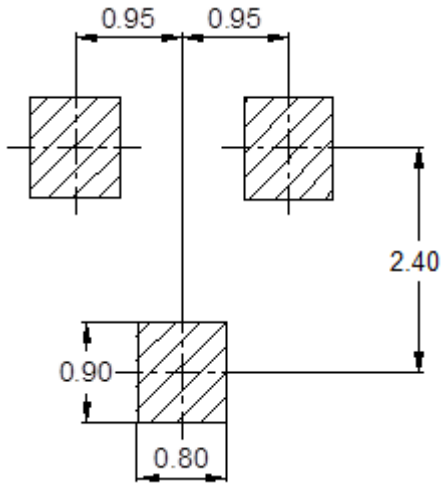
PACKAGE OUTLINE

Plastic surface mounted package SOT-23-3L



SOT-23-3L		
Dim	Min	Max
A	2.80	3.00
B	1.50	1.70
C	1.00	1.20
D	0.35	0.45
E	0.35	0.55
G	1.80	2.00
H	0.02	0.10
J	0.10	0.20
K	2.60	3.00
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
2SCR544R-3L	SOT-23-3L	3000 pcs / Tape & Reel